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MARINE DIVISION

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FMFM 6-1

MARINE DIVISION

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DEPARTMENT OF THE NAVY

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DEPARTMENT OF THE NAVY
HEADQUARTERS UNITED STATES MARINE CORPS
WASHINGTON, D.C. 20380

22 March 1978

FOREWORD

1. PURPOSE

FMFM 6-1, Marine Division, sets forth the doctrine, tactics, and techniques to be employed in operations and training within the Fleet Marine Forces.

2. SCOPE

This manual provides information and guidance for the division commander, his general and special staff, and his subordinate commanders in the planning and conduct of combat operations. It sets forth the principles applicable to the tactical employment of the Marine division and discusses organization for combat and fundamental considerations in the conduct of offensive and defensive combat incident to amphibious operations. The specific employment of the various units of the Marine division may be found in appropriate manuals of the FMFM series.

3. SUPERSESSION

FMFM 6-1 dated 4 September 1974.

4. CHANGES

Recommendations for improving this manual are invited from commands as well as directly from individuals. The attached User Suggestion Form should be utilized by individuals and forwarded to the Commanding General, Marine Corps Development and Education Command (Code D 03), Quantico, Virginia 22134.

5. CERTIFICATION

Reviewed and approved this date.

BY DIRECTION OF THE COMMANDANT OF THE MARINE CORPS

J. C. FEGAN
Lieutenant General, U.S. Marine Corps
Commanding General
Marine Corps Development and Education Command
Quantico, Virginia

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USER SUGGESTION FORM

From:

To: Commanding General, Marine Corps Development and Education Command
(Code D 03), Quantico, Virginia 22134

Subj: FMFM 6-1, Marine Division; recommendation(s) concerning

1. In accordance with the Foreword to FMFM 6-1, which invites individuals to submit suggestions concerning this FMFM directly to the above addressee, the following unclassified recommendation(s) is(are) forwarded:

a. ITEM #1 (May be handwritten; if more spaces is required, use additional sheets and envelope.)

(1) Portion of Manual: (Cite by paragraph and/or page number.)

(2) Comment: (Explain in sufficient detail to identify the points of the suggestion.)

(3) Recommendation: (State the exact wording desired to be inserted into the manual.)

b. ITEM #2

(1)

(2)

(3)

c. ITEM #3 (etc.)

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RECORD OF CHANGES

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MARINE DIVISION

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SECTION 1

INTRODUCTION

101. GENERAL

This manual sets forth doctrine for the employment of the Marine division in the amphibious operation and land combat. It is designed primarily to provide information and guidance which will assist the commander, his staff, and subordinate unit commanders in planning, preparing for, and conducting combat operations. It is to be used in conjunction with FMFM 3-1, Command and Staff Action, the other manuals of the Fleet Marine Force Manual series, the Landing Force Manual (LFM) series, and appropriate service publications.

102. MISSION

a. The mission of the Marine division is to execute amphibious assault operations and such operations as may be directed, supported by Marine aviation and force troop units.

b. The Marine division is the basic ground organization possessing combined arms and services capable of sustained combat. Its mission and concept of employment stem from the missions assigned the United States Marine Corps by the National Security Act of 1947 as amended: "...provide Fleet Marine Forces of combined arms, together with supporting air components, for service with the fleet in the seizure or defense of advanced naval bases and for the conduct of such land operations as may be essential to the prosecution of a naval campaign." Appendix A states the mission, concept of employment, support requirements, and the administrative and logistics capabilities of the Marine division and its subordinate units.

103. OPERATIONAL ENVIRONMENT

a. The tactical employment of the Marine division as discussed herein can apply to any operational condition or environment. Employment in certain environments requires that it be properly augmented and adequately equipped to meet the operational conditions peculiar to theaters of operations. Thus the Marine division is required to be prepared to operate effectively in all geographical areas and under all conditions of warfare including situations short of war, limited war, and general war. The latter includes a conflict in which the entire spectrum of nuclear and chemical weapons may be used.

b. While subsequent sections of this manual set forth broad principles and concepts for the conduct of military operations, the application of these principles and concepts is qualified by the operational environment which prevails at a given time. The degree and manner of their application must be tempered by professional knowledge and sound military judgment.

104. PRINCIPLES OF WAR

a. General.--The principles of war are fundamental truths governing prosecution of war. Proper application of the principles is essential to exercise of command and to successful conduct of military operations. The principles are interrelated and, dependent on the circumstances, may tend to reinforce one another or to be in conflict. Consequently, the degree of application of any specific principle will vary with the situation. These principles are included as a review for the commander and his staff when applying doctrine contained in this manual.

b. Principle of the Objective.--Every military operation must be directed toward a clearly defined, decisive, and attainable objective. The ultimate military objective of war is the destruction of the enemy's armed forces and his will to fight. The objective of each operation must contribute to this ultimate objective. Each intermediate objective must be such that its attainment will most directly, quickly, and economically contribute to the purpose of the operation. The selection of an objective is based upon consideration of the means available, the enemy, and the area of operations. Every commander must understand and clearly define his objective and consider each contemplated action in light thereof.

c. Principle of the Offensive.--Offensive action is necessary to achieve decisive results and maintain freedom of action. It permits the commander to exercise initiative and impose his will upon the enemy, to set the pace and determine the course of battle, to exploit enemy weaknesses and rapidly changing situations, and to meet unexpected developments. Defensive action may be forced on the commander, but it should be deliberately adopted only as a temporary expedient while awaiting an opportunity for offensive action or for the purpose of economizing forces on a front where a decision is not sought. Even during the defense, the commander seeks every opportunity to seize the initiative and achieve decisive results by offensive action.

d. Principle of Mass.--Superior combat power must be concentrated at the critical time and place for a decisive purpose. Superiority is adjudged by relating available force to that of the enemy's, and results from the proper combinations of the elements of combat power. Combat power must also be assessed in terms of relevancy, or its availability for employment at the decisive time and place. Proper application of the principle of mass, in conjunction with the other principles of war, may permit numerically inferior forces to achieve decisive combat superiority.

e. Principle of Economy of Force.--Skillful and prudent use of combat power enables the commander to accomplish the mission with minimum expenditure of resources. This principle is the corollary of the principle of mass. It does not imply husbanding, but rather the measured allocation of available combat power to the primary task as well as secondary tasks such as limited attacks, the defense, deception, or even retrograde action in order to ensure sufficient combat power at the point of decision.

f. Principle of Maneuver.--Maneuver is an essential ingredient of combat power. It contributes materially in exploiting successes, preserving freedom of action, and reducing vulnerability. The object of maneuver is to dispose forces in such a manner as to place the enemy at a disadvantage and thus achieve results which would otherwise be more costly in men and materiel. Successful maneuver requires flexibility in organization, administrative support, and command and control. It is the antithesis of permanence of location and implies avoidance of stereotyped patterns of operation.

g. Principle of Unity of Command.--The decisive application of full combat power requires unity of command. Unity of command obtains unity of effort by the coordinated action of all forces toward a common goal. While coordination may be attained by cooperation, it is best achieved by vesting a single commander with the requisite authority.

h. Principle of Security.--Security is essential to the preservation of combat power. Security is achieved by measures taken to prevent surprise, preserve freedom of action, and deny the enemy information of friendly forces. Since risk is inherent in war, application of the principle of security does not imply undue caution and the avoidance of calculated risk. Security frequently is enhanced by bold seizure and retention of the initiative, which denies the enemy the opportunity to interfere.

i. Principle of Surprise.--Surprise can decisively shift the balance of combat power. By surprise, success out of proportion to the effort expended may be obtained. Surprise results from striking an enemy at a time, place, and in a manner for which he is not prepared. It is not essential that the enemy be taken unaware, but only that he becomes aware too late to react effectively. Factors contributing to surprise include speed, deception, application of unexpected combat power, effective intelligence and counterintelligence including communication and electronic security, and variations in tactics and methods of operation.

j. Principle of Simplicity.--Simplicity contributes to successful operations. Direct, simple plans and clear, concise orders minimize misunderstanding and confusion. If other factors are equal, the simplest plan is preferred.

SECTION 2

ORGANIZATION FOR COMBAT

201. GENERAL

The Marine division is a balanced ground force of combat, combat support, and combat service support units organized and equipped to conduct combat operations as a major ground combat element of a Marine air-ground task force (MAGTF). When required, subordinate units of the division can be task organized into effective forces of combined arms.

202. DIVISION TASK ORGANIZATION

a. The combat support and combat service support units of the division are organized to permit attachment to subordinate combat units. Consequently, the organization of task groups of combined arms is based around the infantry regiment or battalion. These task groupings are called regimental landing teams (RLT) or reinforced regiments and battalion landing teams (BLT) or reinforced battalions. This organization of the Marine division permits flexibility in task groupings for many situations, rather than a fixed organization for all situations.

b. The Marine division achieves maximum mobility for its combat units by relieving them of supply and maintenance functions, by providing flexible services to meet their changing requirements, and by employing helicopters for tactical operations.

c. The factors to be considered in forming a task organization of any size are:

(1) Mission.

(2) Enemy situation.

(3) Status of combat, combat support, combat service support units, and aviation.

(4) Characteristics of the area of operation.

(5) Control of all units.

d. Marine aviation is also capable of furnishing combat support and certain combat service support to the various task organizations. However, in view of the command, control, and logistics support implied by attachment, no aviation unit is attached to nor task organized within the division. Collocating or assigning operational control of detachments of observation aircraft or transport helicopters with ground units for a given period of time does not constitute attachment.

e. When a Marine division has units attached, it becomes "reinforced." Force troops normally will provide these units. All units attached to the division are under the command of the division commander. The amount and types of units attached depend on the mission and are usually attached for the length of time required for the operation.

f. An RLT is a task organization for landing comprised of an infantry regiment reinforced by those elements which are required for initiation of its combat functions ashore. An RLT consists of an infantry regiment, combat support, and combat service support elements as needed for a particular operation. The number of maneuver battalions available to the RLT for landing may vary between two to five battalions and is determined by the scheme of maneuver. The primary consideration in forming the RLT is the determination of the support required for the amphibious assault and for subsequent operations ashore. Depending upon the terrain, means of mobility, enemy situation, and assigned mission, units such as reconnaissance, artillery, engineer, tank, motor transport, or service may be attached to the regiment as required. For more detailed information, refer to FMFM 6-2, Marine Infantry Regiment.

g. The infantry battalion is the basic tactical unit organized to form a balanced fire and maneuver team. In amphibious operations, a BLT is defined as an infantry battalion normally reinforced by necessary combat and service elements, the basic unit for planning an assault landing. It has the necessary staff and communications to control and coordinate reinforcing units. The considerations and principles of organizing a BLT are essentially the same as for an RLT. The BLT consists of an infantry battalion, combat support, and combat service support elements. The organization of the BLT is tailored to meet the specific situation with which it is faced in order that it may best accomplish its mission. These units normally operate under the command of the BLT commander for the assault landing and initial combat ashore. Following the assault landing, the attached units may revert to the control of their parent organization. For more detailed information, refer to FMFM 6-3, Marine Infantry Battalion.

h. There is no prescribed time at which an RLT or BLT reverts to the status of a reinforced regiment or battalion. It is generally a gradual transition. During this transition period, many of the combat support and combat service support elements attached to the RLT or BLT return to parent control. As this occurs and when directed by higher authority, the RLT or BLT becomes a reinforced regiment or battalion.

203. AIR-GROUND TASK FORCES

a. General.--A Marine air-ground task force is a task organization tailored to accomplish the specific mission(s) assigned. This task organization is designed to exploit the combat power inherent in closely integrated air and ground operations.

b. Organizational Structure of Marine Air-Ground Task Forces

(1) The composition of Marine air-ground task forces may vary considerably, but will normally include the following major components:

(a) A command element.

(b) A ground combat element.

(c) An aviation combat element.

(d) A combat service support element.

(2) The term element is used here to denote a major unit in the air-ground task organization. It is restricted to the major organizations which report directly to the commander of the air-ground task force.

(a) Command Element.--The commander of the MAGTF is designated by appropriate authority, normally from sources outside the major elements of the task force. The command element is comprised of the separate air-ground headquarters with adequate communications and housekeeping facilities required for its support. See subparagraph 203c for a description of the separate air-ground headquarters.

(b) Ground Combat Element.--The ground combat element is a task organization tailored for the conduct of ground maneuver. It is constructed around a combat unit (infantry) and it further includes appropriate combat support and combat service support units. Under normal circumstances, there is only one ground combat element in a Marine air-ground task force. A requirement for two ground combat elements may occur in certain situations. Exceptionally, three ground combat elements may be necessary. When there is more than one ground combat element in the task organization, the commander of the air-ground task force directs and coordinates ground maneuver. In these circumstances, control of certain ground combat support units is centralized at task force level for flexibility in their employment. The capabilities of the separate air-ground headquarters must be consistent with the increased span of control and the command and coordination requirements.

(c) Aviation Combat Element

1 Normally, there is only one aviation combat element in a Marine air-ground task force, although in certain circumstances two such elements may be required. This element is a task organization tailored for the conduct of tactical air operations. It includes those aviation command (including air control agencies), combat, combat support, and combat service support units required by the situation. These capabilities are provided from the varied aviation resources of a Marine aircraft wing (MAW) and appropriate force units.

2 Normally, both a fixed-wing attack and helicopter aviation capability is included in the aviation combat element of the MAGTF.

Should only one of the above capabilities be task organized within the force, it is considered that the MAGTF still possesses an aviation combat element.

3 Air operations of the MAGTF are conducted under the principle of centralized control at the level of the MAGTF. When the commander of the MAGTF assumes responsibility for control of air operations, he exercises control through facilities provided by the aviation combat element. He normally designates the commander of the aviation combat element to perform this function as the tactical air commander of the Marine air-ground task force.

(d) Combat Service Support Element.--The combat service support element must provide combat service support to the entire MAGTF. As a minimum, this element will consist of two equal components which report directly to the MAGTF commander in the planning phase and initially in the assault phase of the amphibious operation. A landing force shore party task groupment and logistics support task groupment, both appropriate in composition to the particular MAGTF, will be formed. At some point in time, the landing force shore party will either be absorbed into the logistics support task organization or revert to parent units. Other combat service support groupments may also be organized within the element as required. For example, helicopter support and engineer task groupments may be formed to meet specific mission requirements. For more detailed information about task organizing combat service support elements, refer to FMFM 4-1, Combat Service Support for Marine Air-Ground Task Forces; FMFM 4-3, Landing Support Operations; and FMFM 4-4, Engineer Operations.

c. Air-Ground Headquarters

(1) The commander is provided with an integrated staff and communication facilities to enable him to command and control air-ground operations. The structure and functions of the headquarters are tailored to the mission and task organization of the air-ground task force. Within the task force, principal reliance is placed on direct liaison among the major elements to achieve the necessary coordination of air and ground operations. The capabilities of the air-ground headquarters extend and complement the capabilities of the headquarters of major elements of the task force, but do not duplicate them under normal circumstances.

(2) Staff services to the commander are oriented principally toward matters which affect the entire task force. The formation of a separate air-ground headquarters permits subordinate commanders within the task force to direct their attention primarily to the command of their respective elements. For this reason, a substantial portion of the staff effort of the force headquarters is concerned with matters involving higher, adjacent, and supporting commands. However, the commander makes provisions for direct liaison between these commands and designated subordinate commanders of the task force for specific activities which do not require intervention of the force headquarters. In the amphibious operation, the air-ground headquarters serves concurrently as landing force headquarters. This arrangement enhances the direct relationship of the commander amphibious task force (CATF) and the commander landing force (CLF). The CLF exploits the capabilities of his major subordinate commanders in accomplishing the detailed planning required for the amphibious operation. To this end, he normally assigns them appropriate portions of the landing force plan for their preparation. He may also augment the landing force staff temporarily, particularly for tasks concerned with the landing force control agencies. The major organizational limitation of the separate

air-ground headquarters derives from the fact that it is not normally a permanent headquarters. Commanders minimize the adverse effects of this limitation by such measures as the permanent assignment of key personnel on an additional duty basis, compilation of files and standing operating procedures (SOP's), periodic activation of the headquarters for planning, command post exercises (CPX's), amphibious exercises and field maneuvers, and the designation and frequent inspection of headquarters equipment.

d. Types of Marine Air-Ground Task Forces

(1) There are three types of Marine air-ground task forces among the task organization provided by the Fleet Marine Forces:

(a) Marine amphibious unit (MAU).

(b) Marine amphibious brigade (MAB).

(c) Marine amphibious force (MAF).

(2) The terms MAU, MAB, and MAF are appropriate for use in a generic sense to denote the general level of Marine air-ground task force concerned. They do not in themselves denote a specific task organization unless combined with an appropriate numerical designator. Since Marine air-ground task forces are task organizations, it is inappropriate to refer to these forces as "minus (-)" or "reinforced (rein)." Accordingly, such terms as MAF(-) or MAB(rein) will not be used.

(3) Fractional equivalents of a division/wing team are used in some plans to describe the approximate size of Marine Corps forces. The fractional equivalent, expressed in ninths, is derived from the nine infantry battalions of the Marine division. It is emphasized that Marine air-ground task organizations will not contain the precise fractional portion of all the assets of a division/wing team. Therefore, fractional expressions will equate to only the number of infantry battalions envisioned.

(a) Marine Amphibious Unit

1 The MAU is a task organization which is normally formed from one-ninth of the division/wing team. It is normally commanded by a colonel and is capable of performing combat operations of relatively limited scope.

2 The ground combat element of the MAU is normally a BLT. Only under unusual circumstances would the ground combat element consist of two BLT's.

3 The aviation combat element of the MAU is normally a composite helicopter squadron. In certain instances, the aviation element may consist of an attack squadron, a helicopter squadron, and elements of an observation squadron. The attack squadron normally operates from an airfield previously established ashore. The aviation combat element does not normally contain the aviation resources to conduct active air defense of the MAU. Long range communications, mobile air traffic control communications, and control facilities for direct air support operations are included in the aviation combat element of the MAU as necessary.

4 The logistics support unit of the MAU is formed primarily from force service support group (FSSG) resources. Minor detachments

from the Marine wing support group (MWSG) and other division/wing organizations may also be required. The shore party team of the MAU is formed around the shore party platoon, landing support company, FSSG and augmented from Navy, FSSG/MWSG, and other division/wing units as required to accomplish shore party tasks. Helicopter support teams may be organized around the battalion or one of the shore party platoons, landing support company, FSSG, dependent upon the extent of planned buildup of supplies in landing zones.

5 The preplanned coordinated tactical employment of two MAU's simultaneously in a single combat mission is not contemplated since a combat mission of this scope would normally require the initial assignment of the MAB.

(b) Marine Amphibious Brigade

1 The MAB is a task organization that may be formed from two-ninths to five-ninths of the division/wing team. It is normally commanded by a brigadier general and is capable of conducting air-ground amphibious assault operations in low and mid-intensity conflict environments. For conflict environments in which sustained combat ashore is anticipated, a Marine amphibious force will be required. Accordingly, the MAB is normally organized to accomplish a mission of limited scope. Upon accomplishment of the specific mission, the MAB can be absorbed by the MAF, retained intact, or be disestablished.

2 The ground combat element of the MAB is tailored to accomplish the mission assigned; however, the ground combat capability of the MAB will normally equate to an RLT.

3 The normal aviation combat element of the MAB is a Marine aircraft group (MAG) that has substantially more varied aviation capabilities than the air element tasked in the MAU. It contains those antiair warfare capabilities required by the situation. Unlike the MAU, the entire aviation combat element of the MAB is usually organized and equipped for early establishment ashore in the landing area as airfields are developed.

4 The logistics support group and landing force shore party task groupment includes significant resources from the MWSG and FSSG, as well as other wing, division, and force organizations. Navy organizations also provide significant resources to establish the Navy beach group in support of shore party operations.

5 Each division/wing team has the capability to deploy two MAB's for separate missions should unusual circumstances require such flexibility. The command and control assets required to support such deployments would preclude deployments of a third MAB. Accordingly, subsequent deployments from that division/wing team would have to be organized either for augmentation of one or both of the deployed MAB's or for amalgamation of all remaining division/wing assets with one of the MAB's to form the MAF.

(c) Marine Amphibious Force

1 The MAF, largest of the Marine air-ground task forces, may be formed with many variations in task organization structure. Variations range from five ninths of a division/wing team to an MAF composed

of two reinforced divisions and two aircraft wings, together with an appropriate combat service support organization. The MAF is commanded by either a major general or a lieutenant general depending on its size and mission. It is capable of conducting a wide range of amphibious assault operations and sustained operations ashore. It can be tailored for any intensity of combat and to any geographic environment.

2 The ground combat element of the MAF is usually a Marine division reinforced with appropriate force combat support units. Certain situations may require more than one ground combat element in the task organization, conceivably up to two reinforced Marine divisions.

3 The aviation combat element of the MAF is usually a Marine aircraft wing task organized to conduct all types of tactical air operations. The wing is organized and equipped to facilitate its early establishment ashore in the amphibious operation and is designed for operations in an expeditionary environment. Certain situations may require more than one aviation combat element in the task organization, conceivably up to two Marine aircraft wings. In the MAF which contains two Marine aircraft wings, the senior commander is usually designated the tactical air commander of the MAF.

4 The combat service support element of the MAF is formed around the FSSG, which is structured to support a one division/one wing MAF. The landing force shore party and other required combat service support task groupments are formed from MWSG, FSSG, and other division, wing, and force level resources. If the MAF is composed of more than a one division/one wing team, augmentation from another FSSG will normally be required to support the establishment of beach support areas and inland logistics support areas. The commander, FSSG, in consonance with the concept of logistics support and in conjunction with the landing force shore party commander, will establish a central force logistics support area. Lesser logistics support areas may be established by subordinate logistics task groupment commanders at locations closer to using units and in forward areas to support specific operations. These logistics support areas will be established to provide for the rearming, refueling, and repair of weapons systems as far forward as possible.

5 The MAF may include an organic MAB or MAU as a separate element in order to conduct air-ground operations separated sufficiently in space or time from other MAF elements or to temporarily utilize an in-being, cohesive MAB or MAU when the MAF is a follow-on force. Such operations involving a separate MAB or MAU would normally be of limited duration.

SECTION 3

COMMAND POST ORGANIZATION

301. GENERAL

a. This section discusses the organization, location, displacements, internal arrangement, and security of the division command post (CP), to include the alternate and tactical command posts.

b. The commander has a staff, a command post, and subordinate leaders through which he commands and controls the operations of the division. Command posts are organized and equipped to ensure effective control of the operations of subordinate elements in any situation. This may require two headquarters echelons, each possessing the capability of controlling tactical operations. A third echelon may be required at division and higher echelons to perform administrative and logistics functions not directly concerned with tactical operations.

c. Essential to the effective functioning of the command post is the division general staff, special staff, and personal staff. The general staff consists of the chief of staff, assistant chiefs of staff, G-1 (personnel), G-2 (intelligence), G-3 (operations and training), G-4 (logistics), and the comptroller, and may include a G-5 (civil affairs), when authorized. The special staff consists of staff officers whose activities pertain to particular military specialities. Although the special staff is specified in tables of organization, the commander may meet unusual conditions by omitting special staff members not required, by combining or adjusting responsibilities, and by additional special staffs required. His personal staff is comprised of aides and personal secretaries, and is constituted in accordance with the desires of the commander. For detailed information concerning the duties and functions of the various staffs, see FMFM 3-1, Command and Staff Action.

d. The assistant division commander (ADC) assumes command when the division commander becomes incapacitated or unavailable to exercise command.

There are no definitive duties prescribed for the ADC, except those specifically assigned by the commander. Normally, during the displacement of the main command post, the ADC may be directed to perform functions that require delegated authority.

302. COMBAT OPERATIONS CENTER (COC)

a. The COC of the division command post includes the personnel and communications required to control the tactical operations of the division. The primary purposes of the COC are to continually monitor and record the tactical operations of the division and to supervise the execution of the division commander's tactical decisions in the name of and to the extent authorized by the commander. COC personnel normally do not have decision-making authority, except within clearly established policies, SOP's, or previous tactical decisions of the commander.

b. The COC is not a separate organizational entity, but is staffed by representatives of the G-2 and G-3, together with designated communication personnel. The specific composition and functions of the COC will vary with the desires of the individual commander. Normal COC functions include:

(1) Receiving and recording operational reports from subordinate elements.

(2) Maintaining current plots of the friendly and enemy situations and displaying this information within the COC.

(3) Preparing and submitting operational reports to higher headquarters.

(4) Providing dedicated communication channels for tactical and operational reporting.

(5) Transmitting orders and tactical decisions of the commander to subordinate elements and higher headquarters as required.

(6) Monitoring the progress of division tactical operations and expeditiously reporting significant events or incidents to the G-3 or the commander.

(7) Advising the fire support coordination center (FSCC) and interested staff sections of events or information of immediate concern to them.

(8) Serving as the principal point of contact for liaison personnel from subordinate, supporting, or adjacent tactical elements.

c. The COC controls the division tactical net and operates the division station on tactical nets established by higher headquarters. The COC normally has direct sole-user telephone circuits (hot lines) to major subordinate tactical units and to the COC of higher headquarters. In addition to voice radio nets and telephones, the division COC normally maintains direct teletype links with major subordinate elements and with the COC of higher headquarters.

d. The G-3 exercises staff supervision over the COC, in coordination with the G-2.

303. FIRE SUPPORT COORDINATION CENTER

a. The FSCC is the installation in which are centralized the necessary communication facilities and supporting arms personnel to coordinate air, naval gunfire (NGF), and artillery execution and planning.

b. Coordination of fire support is a command responsibility. Within the framework of normal staff functioning and organization, the coordination of supporting arms with the scheme of maneuver falls within the purview of the G-3. The principal function of the FSCC is to provide the commander the required assistance in planning, coordinating, and controlling his fire support.

c. The composition of the FSCC includes a designated fire support coordinator (FSC), supporting arms representatives, personnel necessary to operations, target information personnel, and necessary communication personnel and equipment. The air representatives and naval gunfire representatives are organic to division headquarters. The artillery regiment provides the artillery representative. See paragraph 511 and FMFM 7-1, Fire Support Coordination, for detailed information.

304. DIRECT AIR SUPPORT CENTER (DASC)

The direct air support center is not an organic part of the Marine division, but an important air control agency of the Marine aircraft wing. Since this is the agency which controls close air support strikes, it is located in proximity to the FSCC. To ensure security, this agency is usually adjoining the division CP. See FMFM 5-1, Marine Aviation, and FMFM 5-4, Offensive Air Support, for detailed information.

305. MAIN COMMAND POST

a. The main command post provides the facilities through which the division commander normally exercises command and control of the division. It is manned by the command element of the headquarters, consisting of the commanding general, the chief of staff, the general staff sections, and designated members of the special staff. Officers and enlisted personnel of these staffs are organized to ensure continuous operations. Of primary importance are communications personnel. The COC, FSCC, DASC, service and support elements, and agencies providing security are also located in the perimeter of security of the CP. (See figs. 1 and 2.)

b. When the term command post is used alone, without a qualifying adjective or qualifying context, it refers to the main command post.

c. For detailed information on security of the command post, see paragraph 1010.

306. ALTERNATE COMMAND POST

a. The alternate command post is an installation consisting typically of the assistant division commander and representatives of each general staff section and selected special staff sections. It is used during displacement or in especially hazardous situations which warrant special measures to assure continuity of command.

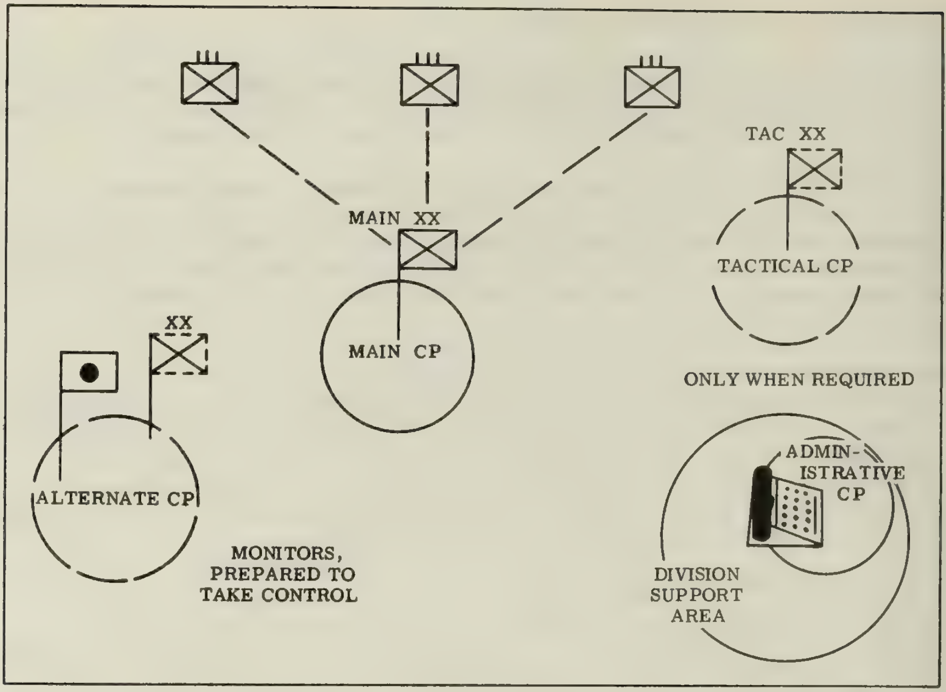


Figure 1.--Sample Relationships Between Command Posts.

b. The alternate command post has insufficient personnel and equipment to provide fully for the communications, housekeeping, and security requirements. It must, therefore, be augmented from other division resources. From the standpoint of location and general convenience, the artillery regimental command post is the logical location for the alternate command post.

c. When in operation, the alternate command post monitors the division tactical situation. This continuing readiness enables the division commander to exercise control through the alternate command post or pass control to the assistant division commander during displacement or due to serious damage to the main command post.

307. TACTICAL COMMAND POST

a. A tactical command post may be established when the division commander desires to exercise close supervision, units are widely separated, or the division is moving rapidly.

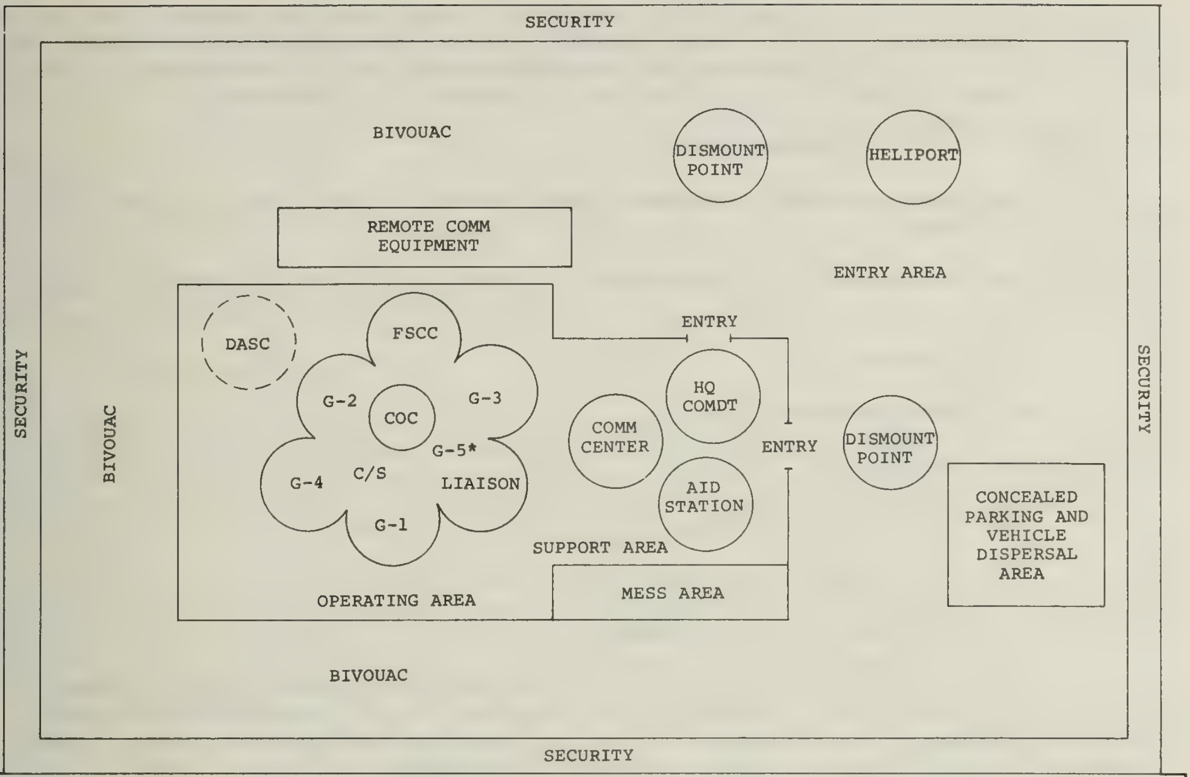
b. The tactical command group should be as small as is practical and highly mobile. An example of what it may contain is as follows:

(1) Commanding general.

(2) Aide.

(3) G-3 or representative.

(4) G-2 or representative.



* When authorized.

NOTES:

1. No location is indicated for the commander as it is recognized that each commander will have his own desires in this regard. Most commanders will locate themselves in the operating area.
2. The nature of the area occupied will cause modification in the internal arrangement in each case. Relative location of facilities which generally conform to this diagram will give the best results in terms of ease of coordination and reduction of traffic in the command post.

Figure 2.--Sample Internal Arrangement for a Main Command Post.

(5) Operations assistant.

(6) Necessary communication personnel.

(7) Security personnel.

c. Whenever practicable, the tactical command post may move by helicopter. As mobility is a requirement for employment of a tactical command post, provision for specific transportation should be made based on the terrain, distances to be traversed, tactical situation, and enemy dispositions.

d. The tactical command post must maintain continuous communications with the main command post. Other communication requirements are based on the particular situation which the commander desires to control personally. In most situations, a link with the major subordinate tactical units, in addition to the link with the main command post, will suffice.

e. The tactical command post may be established at the site selected for the next location of the main command post. In this event, it may be advantageous to include representatives from other staff sections in the tactical command group to minimize the problems of displacement.

308. ADMINISTRATIVE COMMAND POST

a. The administrative command post normally includes at least the following sections:

(1) Adjutant (including subordinate unit administrative representatives).

(2) Disbursing.

(3) Embarkation.

(4) Legal.

(5) Special services.

(6) An element of public affairs.

(7) A communication element.

b. Other administrative elements are located where they can best perform their functions. Depending on the nature and predicted duration of the operations, they may be located at the administrative command post, with the rear echelon, or with a supporting element.

c. The administrative command post normally remains in the division support area. Units in the support area provide most of the security and the bulk of its logistics support.

d. The administrative command post may not displace with the same frequency as the main command post. Rather, it displaces only as often as administrative requirements demand or as the service elements on which it depends for support change their location.

e. When the administrative command post is required to displace, the G-1 recommends the general location to which it will move. The specific location usually is determined by the senior officer in the administrative command post. In some cases, it is convenient for the administrative command post to occupy sites previously occupied by the main command post, thereby taking advantage of existing communications and other improvements accomplished for the main command post.

309. REAR ECHELON

When part of the administrative group is not taken to the objective area, it is designated as the division rear echelon. The senior Marine officer present in the rear echelon is normally designated as officer in charge.

310. LOCATION OF THE MAIN COMMAND POST

The main command post is located close enough to subordinate tactical units to ensure positive control by the commander. In addition, and whenever practical, it is located:

a. To satisfy operating requirements of those communication means upon which the effectiveness of the command post largely depends. This applies particularly to line-of-sight radio equipment.

b. To permit maximum use of natural cover and concealment for all command post elements.

c. To require a minimum of construction of helicopter landing sites and access roads.

d. On terrain which facilitates security or near a unit which can assist in furnishing security.

311. INTERNAL ARRANGEMENT

A main command post is arranged to provide maximum efficiency in intrastaff coordination. The internal arrangement of a command post is influenced by the size of the headquarters, nature of the combat, the terrain, and other factors. The following factors, however, are of general application to the internal arrangement of any command post.

a. Facilities are dispersed to diminish the hazard of casualties from single rounds of conventional artillery or mortar fire and, whenever tactical circumstances permit, are dug in. When the threat of guerrilla attack exceeds that of hostile shellfire, facilities may be arranged to provide maximum contribution to local security.

b. Vehicle dismount points, message drop and pickup points, and helicopter landing sites are located within the security perimeter of the command post.

c. Supply and medical facilities should be situated near the command post entrance.

d. Bivouac areas are located to add depth to the local security.

e. The principal operating staff agencies are arranged to facilitate their functioning both day and night.

f. The communication center should be located to provide ready access to staff sections, and it should be located near the controlled entry points to facilitate reception and dispatch of messengers.

312. SHIP-TO-SHORE DISPLACEMENT

a. The command post is displaced whenever required to ensure effective control, commencing with the initial ship-to-shore movement and continuing during subsequent operations ashore.

b. Location of the initial command post ashore is normally selected by G-3 from map and photographic reconnaissance. He seeks advice from other members of the staff, particularly the communication-electronics officer.

c. After the general location for the new command post is approved, the G-1, with a reconnaissance party including the headquarters commandant and the communication-electronics officer, usually makes a physical reconnaissance of the new location. The G-1, with the advice of the headquarters commandant and the communication-electronics officer, selects the specific site for the command post and prescribes the general interior layout. The headquarters commandant then prepares the detailed plan for the command post movement and installation.

d. An advance party proceeds to the location to install necessary communications, prepare a heliport, mark specific locations for all command post installations, and perform any required engineer and administrative tasks. A plan for command post security is prepared and security is established around the new site before movement of the command post commences.

e. It is customary during the ship-to-shore displacement for the assistant division commander to land first with a small staff and establish the advance command post.

f. The division commander then lands with the rest of the command and commences operations in the new command post.

313. DISPLACEMENT ASHORE

a. The displacement of command posts during tactical operations is accomplished in a manner that avoids interruption of the commander's ability to exercise control.

b. The selection of a general location for the command post by the operations officer (G-3) and the specific site for the new location by the G-1 are accomplished in the same manner as for ship-to-shore displacement. (See subpars. 312b, c, and d.)

c. Displacement is conducted by one of two methods:

(1) Displacement directly from the old command post to the new command post as described above for ship-to-shore displacement.

(2) Temporary shift of control to the alternate division command post until the main command post has completed displacement and is prepared to resume control. The division commander may proceed to the alternate command post to exercise control himself while the main command post is being displaced, or he may direct that control be exercised by the assistant division commander at the alternate command post. (See fig. 3.)

d. When command posts are displaced, subordinate and higher headquarters are notified by message of the time of the anticipated move and the new location of the command post. When the move is accomplished, they are notified by message of the actual time of the opening of the new command post and closing time of the old command post.

e. Liaison officers are briefed on the displacement and on projected plans immediately before the old command post closes. They proceed to their parent headquarters to brief their commanders, procure information, and rejoin the command post at the new location.

314. DEVELOPMENT OF STANDING OPERATING PROCEDURES

To achieve optimum efficiency in the ship-to-shore movement and subsequent displacement of command posts, it is desirable that every operational headquarters develop detailed SOP's for command post organization and echelonment. It should include as a minimum the following:

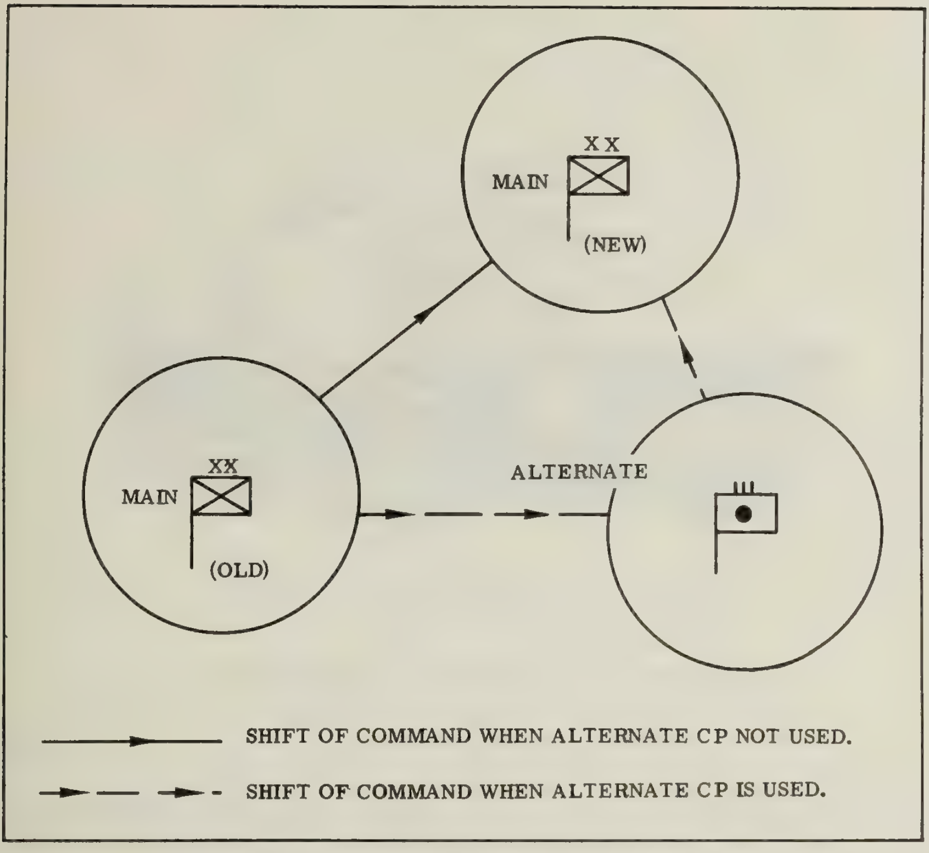

XX
MAIN
(NEW)
XX
MAIN
(OLD)
ALTERNATE
SHIFT OF COMMAND WHEN ALTERNATE CP NOT USED.
SHIFT OF COMMAND WHEN ALTERNATE CP IS USED.

Figure 3.--Shore Displacement of the Command Post.

a. Internal arrangement.

b. Security measures, both active and passive.

c. Displacement procedures for the ship-to-shore movement and subsequent movements by helicopter, motor transport, fixed-wing aircraft, and by foot.

d. Provision for emergency destruction of classified materiel.

e. Provision for routine logistics support of the command post.

f. Communication requirements, to include priority for installation of telephones, radios, and multichannel radio circuits.

SECTION 4

COMBAT AND COMBAT SERVICE SUPPORT

401. GENERAL

a. The combat support elements organic to the division are the artillery, tank, assault amphibian, and reconnaissance units.

b. Additional combat support elements are provided from force troops to support the division. Force troops are normally attached to the division; however, certain elements may be assigned a supporting role.

c. The organic combat service support organizations within the division are the combat engineer battalion and the truck company, headquarters battalion.

d. Additional combat service support elements are available from the FSSG. Elements of the FSSG may be attached or placed in direct support of the division or the FSSG may be tasked to provide general support to all division units.

e. Air support is provided by wing units.

402. ARTILLERY

a. General.--The organization of field artillery is established in appropriate tables of organization. The field artillery organizations of the Fleet Marine Forces are designed to complement the tactical concepts employed by the landing force in amphibious warfare. These organizations provide a balanced artillery fire means of varied calibers, target acquisition means, and supporting elements. When established ashore, Marine artillery units are capable of supporting large-scale amphibious operations and subsequent land operations, if required.

b. Missions.--Marine Corps field artillery has the following general missions in support of the amphibious assault and subsequent operations ashore:

(1) Providing close and continuous fire support to elements of the landing force by neutralizing or destroying those targets which constitute the most serious threat to the supported unit.

(2) Giving depth to combat by attack of hostile reserves, restricting movement, and disrupting command systems and other installations.

(3) Attaining fire superiority over enemy delivery means.

c. Artillery Regiment

(1) The structure of the Marine division provides a field artillery regiment as its primary source of fire support. The artillery regiment is organized to support the division and its subordinate units.

(2) The artillery regiment is the primary source of fire support for frontline units. The regiment operates well deployed in order to provide direct and general fire support to frontline units. Its operations and actions are closely integrated with those of the infantry in order to be responsive to rapidly changing tactical situations. The artillery regiment provides a fire support coordination section to assist in establishing and operating an FSCC at the division CP. The regimental headquarters can support, by location and communications, an alternate division command post.

d. Force Artillery Units.--Force artillery units consist of medium and heavy cannon batteries. These units are not organic to the Marine division but are attached as required to ensure adequate artillery support. This additional firepower increases the commander's ability to influence an action with artillery fires. See FMFM 7-4, Field Artillery Support, for information on the employment of artillery.

403. NAVAL GUNFIRE

a. Naval gunfire support, including the employment of guns, rocket launchers, and guided missiles, is delivered by ships' batteries to support troops and related surface and air operations.

b. The mission of naval gunfire support, in conjunction with other arms, is to assist in the capture of the objective by:

(1) Destroying or neutralizing shore installations that oppose the approach of ships and aircraft to the objective.

(2) Destroying or neutralizing defenses that oppose the landing.

(3) Destroying or neutralizing defenses that oppose the advance of troops after landing.

c. Naval gunfire support is divided into three operational phases: pre-D-Day, D-day, and post-D-day. The pre-D-day, D-day, and post-D-day periods are clearly separated in the time sequence of the operation.

(1) If not made by higher authority, the decision to employ an advance force for pre-D-day operations is made early in the planning phase

by the CATF after consultation with the CLF. The decision is made after weighing the relative advantage of strategic and/or tactical surprise and the requirement for preparation of the objective area.

(2) Support of D-day operations is the most important and difficult task which confronts naval gunfire. That period between morning twilight and approximately H-30 minutes affords an opportunity for destruction fires to be placed on important enemy defenses. If an advance force has been operating in the objective area, this period is devoted to the attack of newly discovered targets and targets that have not been completely destroyed. If there have been no advance force operations, the fire support group immediately begins destructive fire on those targets which would affect the success of the assault.

(3) Naval gunfire support continues after D-day. Support of troop operations during this period is provided mainly by artillery, although the ships' fires can be and are used for the same type missions. As the troops advance beyond the range of the naval guns, the gunfire support ships are assigned other missions, among them being delivery of supporting fires on the flanks of the landing area and against targets of opportunity discovered along coastal areas. For a detailed discussion of naval gunfire support, see FMFM 7-2, Naval Gunfire Support.

404. AIR SUPPORT

a. Close Air Support.--Close air support is air action conducted against hostile targets which are in proximity to friendly forces and which require detailed coordination and contact with other supporting fires and the requesting infantry unit. Close air support is one of the major supporting arms of ground forces. Its employment requires that all ground commanders have a thorough knowledge of its capabilities and limitations. By his knowledge of all supporting arms, the supported unit commander can intelligently select the best weapon available for a particular mission. Each infantry unit, battalion size and larger, has an organic tactical air control party (TACP) to provide its commander with means to request and control close air support fires and to provide technical information regarding its employment. For a detailed discussion, see FMFM 5-4, Offensive Air Support.

b. Helicopter Support.--The employment of the helicopter in the helicopterborne assault provides the division commander with a tremendous increase in flexibility and mobility, thus a consequent increase in shock power and combat power. The helicopterborne assault, like close air support, requires detailed planning and coordination with the ground forces and other supporting arms. The great mobility and versatility of the helicopter permits the ground commander to greatly reduce the time and space limitations normally encountered. A helicopterborne force can rapidly cross terrain and obstacles, bypass hostile areas, and attack, destroy, or seize important objectives deep in enemy territory. For a detailed discussion, see FMFM 5-1, Marine Aviation; FMFM 3-3, Helicopterborne Operations; and FMFM 5-3, Assault Support.

c. Fixed-Wing Transport Support.--Marine fixed-wing transports contribute to the tactical air support of ground forces much in the same manner as transport helicopters, but to a much lesser degree. Fixed-wing transport aircraft are employed to deliver troops, supplies, and equipment to objectives beyond the lift or range capability of helicopters. Unlike helicopters, fixed-wing transports require airfields in the marshalling area as well as in the objective area that meet minimum specifications regarding length, width, and surface requirements. Normally, the support received is of a service type; however, fixed-wing transports do provide direct support to ground commanders in air landed and air delivery operations. (See FMFM 5-1, Marine Aviation, and FMFM 4-6, Movement of Units in Air Force Aircraft.)

d. Aerial Observation Support.--The Marine observation squadron (VMO) provides observation type aircraft, which are used by trained aerial observers or artillery air observers to conduct assigned observation and spotting missions. The squadron also provides aircraft for ground commanders and staff officers to conduct personal aerial reconnaissance. These functions may also be performed in aircraft attached to HMM's, HML's, and HMA's. (See FMFM 5-6, Air Reconnaissance.)

e. Airborne Sensors

(1) Aerial reconnaissance, employing a variety of airborne sensors, forms an important means of gathering information concerning the enemy and natural conditions. The family of airborne sensor equipment includes infrared, side-looking airborne radar (SLAR), optical, electronic warfare support measures, and electronic countermeasures.

(2) Airborne sensors are employed singly or in a group, depending on the information needed, weather conditions, and the capabilities and limitations of the equipment. An important characteristic of airborne sensors is the capability to subject areas to day-to-day and week-by-week analysis.

(3) Marine tactical reconnaissance squadrons (VMFP's) are organized to provide multisensor imagery reconnaissance to Marine forces. The mission of the VMFP is to conduct aerial multisensor, imagery reconnaissance, to include aerial photographic, infrared, and side-looking airborne radar reconnaissance in support of Fleet Marine Force operations. (See FMFM 5-6, Air Reconnaissance.)

(4) The Marine tactical electronic warfare squadron (VMAQ) is organized to provide airborne electronic reconnaissance and airborne electronic warfare in support of Marine forces. (See FMFM 5-6, Air Reconnaissance.)

f. Air Defense.--Active air defense of the division area is normally provided by the associated Marine aircraft wing, to include both aircraft on combat air patrol (CAP) and defense by surface-to-air missile units. Marine surface-to-air missile units may be located within the division area. Passive air defense is provided by warning of enemy air attack and by construction of individual foxholes and other protective shelters. (See FMFM 5-5, Antiair Warfare.)

405. NUCLEAR AND CHEMICAL FIRES

a. Nuclear firepower is a form of combat power. Nuclear fires may on occasion be used alone to accomplish tasks which might otherwise require maneuver and close combat; however, most tasks require a combination of firepower and maneuver. Plans for the employment of nuclear firepower, other types of fire support, and maneuver units are integrated to produce decisive results.

b. Control of nuclear fires is achieved by the allocation of weapons and the designation of releasing commanders. An allocation is the apportionment of specific numbers and types of nuclear weapons to a commander for a stated time period for planning purposes only. An allocation does not include authority to expend the weapons. This authority will be conveyed through command channels, originating with the President through the theater commander and may be granted at the same time, or subsequent to the allocation. This authority is finally vested in the releasing commander, that is, the commander who has been delegated authority to approve the use of nuclear weapons within prescribed limits.

c. When their use has been authorized, decisions to employ nuclear weapons and chemical agents rest with the commanders to whom the weapons are allocated. Requests for fires are transmitted through command channels to the commander authorized to act on the request, or to his representative. Notification of the request should also be sent through fire support channels to alert the fire direction center and to ensure prompt delivery of fire. Casualty producing effects of nuclear and chemical weapons can extend to greater distances and cover greater areas than conventional weapons and can exert an influence on the battlefield for a considerable period of time. Accordingly, when nuclear and chemical effects will probably extend into an adjacent commander's area of responsibility, the concurrence of the affected commanders must be obtained or the matter decided at the next higher headquarters. When weapons are to be delivered by another service, the supported commander specifies the target, the time of attack, troop safety measures, and prediction of fallout patterns.

d. The wide range of effects available from nuclear and chemical weapons and the organic delivery capabilities of a Marine air-ground task force provide the commander with increased flexibility in planning and executing operations. For a detailed discussion of nuclear and chemical operations, see the FMFM 11 series on nuclear and chemical operations in the Fleet Marine Force.

406. MECHANIZED AND ANTIMECHANIZED SUPPORT

a. Tanks.--The primary mission of tank units is to provide combat support to the Marine division and to provide the division with weapons capable of destroying major fortifications and defeating heavily armored units. For a detailed discussion of tank employment, see FMFM 9-1, Tank Employment/Antimechanized Operations. The mission of the division may place tanks in any of the following roles during combat:

(1) In support of infantry.

(2) As the nucleus of a mechanized task force for limited independent operations in conjunction with other arms.

(3) Engaging enemy armor.

b. Assault Amphibious Vehicles

(1) The success of any amphibious operation may depend on the flexibility and mobility of the landing force. A diversification of landing means, such as the conduct of a dual helicopter-assault amphibious vehicle amphibious assault, magnifies the enemy's problems in defending against landings. The situation and terrain permitting, the utilization of assault

amphibious vehicles to transport troops and supplies across landing beaches to inland objectives contributes to the momentum of the attack and the rapid buildup of forces ashore.

(2) The organization of assault amphibious vehicle units for combat is determined through consideration of the mission, organization, and scheme of maneuver of the division and the terrain and hydrography in the objective area. Assault amphibious vehicle units are assigned throughout the division so as to best support its needs. Tactical integrity of units is retained where possible. For a detailed discussion of the employment of the assault amphibious vehicle, see FMFM 9-2, Amphibious Vehicles.

407. ENGINEER SUPPORT

a. Combat engineer support for the division is provided by the combat engineer battalion organic to the division and by the engineer support battalion of the FSSG.

b. The combat engineer battalion within the division provides close combat engineer support to division units. The battalion is organized to provide one combat engineer company in support of each infantry regiment and associated task elements and one combat engineer company to support rear area organizations.

c. The engineer support battalion, FSSG is organized to provide general engineer support of a deliberate nature to the landing force as a whole. For a discussion of the mission and concept of employment of the combat engineer battalion, see appendix A. Additionally, FMFM 4-4, Engineer Operations, provides a detailed discussion of employment of engineer units.

408. RECONNAISSANCE

a. The primary mission of the division reconnaissance battalion is to conduct reconnaissance in support of the Marine division and its elements. The battalion consists of a headquarters and service company and four reconnaissance companies. The concept of operations of the battalion emphasizes directed reconnaissance rather than passive surveillance.

b. Maximum effectiveness is achieved by employing the battalion as a unit directly under division control. However, elements of the reconnaissance battalion may be attached to or placed in support of subordinate units of the division or task organized MAU's and MAB's. Such employment is normally required when a division unit is on an independent mission or when the area of responsibility or zone of action assigned presents a reconnaissance requirement beyond the organic capability of the infantry. Extensive use of the helicopter will provide the high degree of mobility necessary for reconnaissance activity in both limited and general warfare. Each of the reconnaissance companies is capable of being lifted in its entirety by helicopter. The battalion has a capability to conduct amphibious reconnaissance.

409. MILITARY POLICE SUPPORT

a. General.--Military police support for the division is provided by the military police company. While military police support is primarily provided to the combat elements of the division, certain functions are within the scope of the support aspect of combat service support.

b. Traffic Control.--For traffic control, the military police company provides direct support to the regiments. Vehicular traffic control is accomplished through the operation of traffic patrols, traffic control posts, and information posts.

c. Straggler Control

(1) The area in which straggler control is established extends from the rear of units in contact to the division rear boundary. Straggler posts established by military police are located at critical points on the main roads within the division area and serve multiple functions of traffic control, straggler control, control of the circulation of individuals, and refugee control. These posts are augmented by roving military police patrols which also have the same multiple functions.

(2) The military police company operates a straggler collecting point at a central location. As stragglers are collected at the collecting point, they are sorted for return to their units, evacuation to a medical facility, or other disposition as may be appropriate.

(3) Each subordinate commander is responsible for straggler control within his own area. Commanders of units located in the division rear area assist in the control of stragglers who appear in their areas of responsibility.

d. Confinement Facilities.--Convicted military prisoners normally are not confined in the division area. The military police operate a temporary detention facility for United States personnel awaiting trial and convicted military prisoners awaiting evacuation. The military police company also provides escorts for the evacuation of military prisoners.

e. Prisoners of War

(1) Collection.--The military police operate the division prisoner-of-war collecting point. This facility is centrally located and conveniently accessible from a main supply route (MSR). All prisoners of war taken in the division area are processed through this facility except wounded prisoners of war, as indicated below. After processing, including interrogation by intelligence personnel, the prisoners of war are held for further evacuation to the rear. Normally, a prisoner-of-war collecting point is established at the rear of each committed regiment by the military police in direct support.

(2) Evacuation.--Although evacuation of prisoners of war is a division military police responsibility, large-scale evacuation may require augmentation or attachment of additional personnel. Wounded prisoners of war are evacuated through medical channels. Military police evacuate the division collecting points as arranged for by the division provost marshal. When a combat unit of the division is operating independently or semi-independently, division military police may be attached to serve as a nucleus for the prisoner-of-war collection and evacuation activities of the force.

410. COMMUNICATIONS

a. General.--The division commander must have sufficient communications to provide the continuous capability to command assigned forces; to control and coordinate movement, supporting fires, and logistic support; and to collect and disseminate information. This requires that he have the means to maintain continuous communications with each of his subordinate and supporting units, with higher headquarters, and with adjacent units. For detailed information on communications, see FMFM 10-1, Communications.

(1) Responsibility for Communications.--Responsibility for communications is a function of command. Principles governing responsibility for establishment of communications are:

(a) Establishment of communications between senior and subordinate units is the responsibility of the senior. This is usually accomplished through designation by the senior commander of the radio nets, wire lines, and multichannel radio terminals which the subordinate unit must enter/terminate. The senior unit installs and maintains wire lines to, and multichannel radio terminals at, the subordinate unit.

(b) The responsibility for establishment of lateral communications between adjacent units rests with the first common senior, who may either establish communications or direct one or more of the units concerned to establish communications.

(c) A unit assigned a mission in support of another unit is responsible for establishment of communications to the supported unit.

(d) Responsibility for the establishment of communications with an attached unit rests with the commander of the unit to which the attachment has been made.

(2) Types of Communications.--Communication means are classified into two types--telecommunications and physical communications. While the term telecommunications is generally associated with rapid high-capacity electrical or electronic communication means such as wire or radio, it also includes visual and sound communications. Physical communications include mail and messenger service.

(3) Communication Organization.--The communication company of the division headquarters battalion provides communications for the division main command post, alternate command post, administrative command post, tactical command post, and subordinate echelons as required. Communication requirements for the division administrative command post depend upon the location of that installation; normally, the administrative command post will be serviced by a collocated combat service support unit headquarters. If additional communication equipment or personnel are required, the division may be augmented by force troops units. When the division alternate command post is established at the headquarters of the artillery regiment, a portion of the communication requirements may be satisfied by the use of communication facilities installed by or for the use of the artillery regiment.

b. Telecommunication Systems

(1) Radio.--A percent symbol (%) following a net title indicates additional circuits may be activated as required. In such cases, the nets are further identified by a suffix number.

(a) External Radio Nets.--The division normally establishes stations on the following nets with senior headquarters. See FMFM 10-1, Communications, for a description of the purpose and composition of these nets.

1 Command net 1.

2 Command net 2.

3 Tactical net 1.

4 Tactical net 2 (if established).

5 Alert broadcast net.

6 Logistics net.

7 Reconnaissance net.

8 Naval gunfire support net.

9 Naval gunfire control net.

10 Naval gunfire air spot net (if required) (%).

11 Artillery command/fire direction net.

12 Air observation net (%).

13 Damage control net.

14 Mobile command net (FMF mobile command) (%).

15 Medical regulating net.

(b) Internal Radio Nets.--The following radio nets are normally established and controlled by division headquarters:

1 Division Command Net 1.--Provides a means to exercise command and control of the major subordinate units.

2 Division Command Net 2.--Provides the commander with an overload net for command net 1. Usually, if command net 2 is activated, command net 1 is for the major subordinate combat and combat support units and command net 2 is then for the major combat service support units.

3 Division Tactical Net.--Provides a means to exercise tactical control of major combat and combat support units of the division. This is normally a voice radio net, and stations on the net include the division main, alternate, and tactical CP's; the artillery and infantry regiments; the reconnaissance battalion; the division tactical-logistical (TACLOG) group; and attached and supporting combat and combat support units as required.

4 Division Reconnaissance Net (%).--This net (normally voice) provides a means for direction of the reconnaissance effort and for reporting of reconnaissance information directly to the division headquarters by deployed reconnaissance elements. Stations on this net include

the division main and alternate CP's, the reconnaissance battalion, and deployed reconnaissance elements as directed.

5 Division Alert/Broadcast Net.--This net provides a means for the rapid broadcast of alerts, warnings, and information of any type. It is normally operated as a voice broadcast net in which the division headquarters is the only transmitting station. Stations on the net include the division main, alternate, and administrative CP's; all regiments and battalions; and other smaller units as directed. It may also be used for the transmission of other types of traffic.

6 Division Air Observation Net (%).--This voice radio net provides a means for controlling air observation and for the transmission of information from air observers to division headquarters and to other division tactical units. It may also be used for adjustment of artillery or naval gunfire on an emergency basis. Stations on this net include the division main and alternate CP's, air observers, and subordinate division units as required. This net need not be established if an air observation net established by a higher headquarters satisfies the requirement. There may be as many as three air observation nets established, in which case the nets will be numbered.

7 Division Damage Control Net.--This net provides a means by which damage assessment information may be exchanged subsequent to an enemy attack with mass destruction weapons. Evacuation and casualty assistance may also be controlled and coordinated on this net. When this net is activated, stations include the division main and alternate CP's, all battalions and regiments, damage control parties and monitor teams, mass evacuation units, and designated medical units.

8 Division Intelligence Operations Net.--This is a functional net which provides a means of exchanging intelligence information between division headquarters and tactical units. Stations on the net are the same as division command net 1. The establishment of this net is dependent upon the availability of equipment, and it need not be established if the requirement can be satisfied by the command net.

9 Division Medical Evacuation Common Net.--This net provides a means of coordination between the requesting unit, evacuation helicopters/vehicles, and medical facilities engaged in medical evacuation.

10 Special Purpose Nets.--Other special purpose nets, such as convoy control nets, which may be established by the division are described in FMFM 10-1, Communications.

(c) Division Supporting Arms Radio Nets.--The following radio nets are normally used in the division fire support coordination center:

1 Tactical Air Request (TAR) Net (%).--This voice radio net provides a means for the ground combat units to request immediate air support from the DASC. Stations on the net include all TACP's and FSCC's within the division, air support radar teams (ASRT's), the DASC, and other air control agencies as required. Regimental and division FSCC's monitor this net and may modify, approve, or disapprove a specific request. The DASC uses this net to brief the requesting TACP on the details of the mission. Damage assessment may be reported over this net. Multiple TAR nets may be required, in which case they are numbered.

2 Tactical Air Direction (TAD) Net (%).--This voice radio net provides a means through which air control agencies control support aircraft in the conduct of tactical air operations. Multiple tactical air direction nets are normally required, and are designated tactical air direction 1, tactical air direction 2, etc. Stations on this net include strike aircraft, affected TACP's, FSCC's, ASRT's, and air control agencies and may include a tactical air coordinator (airborne). At the completion of a strike, damage assessment is reported to the pilot over this net. This net may also be used to direct resupply by airdrop.

3 Helicopter Request Net (%).--This voice radio net provides a means for requesting immediate helicopter support. This net is employed in the same manner as the tactical air request net and has the same stations. If the scope of operations permits, this net may be omitted and helicopter requests submitted over the tactical air request net.

4 Division Naval Gunfire Support Net.--This net provides a means for coördination of naval gunfire support within the division. Stations on the net include the division FSCC, the naval gunfire teams at the infantry regiments, and the ships in general support of the division.

5 Division Naval Gunfire Air Spot Net (%).--This net provides a means for adjustment of naval gunfire by airborne spotters. Stations on this net include the division FSCC and airborne spotters. Direct and general support ships, shore fire control parties, and naval gunfire liaison teams enter this net as required. This net may be omitted if the requirement is satisfied by use of a naval gunfire air spot net established by a higher headquarters. Multiple air spot nets may be required, in which case they are numbered.

6 Naval Gunfire Ground Spot Net (%).--This net provides a means for requesting and adjusting naval gunfire by the shore fire control party. Normally, there is a requirement to establish multiple spot nets within the division; they are numbered and assigned to infantry battalions as appropriate. Stations on the net include the battalion naval gunfire spot team, naval gunfire liaison team, and direct support ships. Other naval gunfire liaison teams and general support ships enter these nets as required.

7 Division Radar Beacon Net.--This net provides a means for controlling and coordinating the use of radar beacons. This net is established only when radar beacons are employed, and stations on the net include radar beacon teams and the division naval gunfire officer.

8 Artillery Regiment Command Net.--This net is normally used by the artillery regimental commander to exercise command and control of organic and attached artillery units, but may also be used as an alternate fire direction net. Stations on the net include the artillery regiment, all artillery battalions, attached artillery units, and the division FSCC.

9 Artillery Regiment Fire Direction Net.--This net provides a means for the commander to exercise tactical fire direction of subordinate units by the assignment of fire missions, designation of units to fire, and the conduct of time-on-target missions. Subordinate units may use this net to request additional fires from artillery units. This net may also be used for the exchange of fire planning data and fire support

coordination information. Stations on this net include those on the artillery regiment command net, plus supporting artillery units. Artillery liaison officers enter this net as required.

10 Artillery Regiment Tactical Net.--This net is used for the exchange of tactical information between artillery units and representatives. Fire planning, counterfire information, positions of artillery units, and fire support coordination information are generally transmitted over this net. Stations on this net are the same as the artillery regiment fire direction net.

11 Artillery Air Spot Net (%).--This net provides a means for the reporting of target information and adjustment of fire by artillery aerial observers. Multiple nets may be required, in which case they will be numbered. Stations on this net include artillery aerial observers, division FSCC, artillery regiment, and all artillery battalions. Batteries may enter this net as required.

(d) Other Nets.--Numerous other radio nets are established within the division to meet the needs of subordinate units or for special functions. These nets are described in FMFM 10-1, Communications.

(2) Multichannel Radio

(a) Multichannel radio is normally the primary means for provision of telephone/teletype/data/facsimile service between units. Services provided may include:

1 Common user telephone service.

2 Functional channels between staff sections.

3 Supporting arms channels.

4 Teletype channels.

5 Data channels.

6 Facsimile channels.

(b) The division communication company installs and operates both terminals of the following multichannel circuits:

1 Division main CP to each infantry regiment.

2 Division main CP to artillery regiment.

3 Division main CP to division alternate CP.

4 Division main CP to logistics support element CP.

5 Division alternate CP to logistics support element CP.

6 Logistics support element main CP to logistics support element alternate CP.

7 Three additional terminals are placed in a standby status at the division alternate CP to be used on the division/infantry regiment links when command of the division is exercised from the division alternate CP.

(c) When the division is a subordinate element of the MAGTF, multichannel links between the division main and alternate CP's and the MAGTF headquarters are installed and operated by the force communication battalion. In an amphibious operation when a division headquarters is designated as the landing force headquarters, a multichannel radio link is normally established between the division main CP and the CATF afloat. The afloat terminal is provided by the Navy (operated by Marines), while the ashore terminal is provided by the division communication company.

(3) Wire

(a) Wire is used extensively within the command post for local telephones, for wire/multichannel radio terminals, for radio/wire integrated circuits, for teletype circuits, and for radio remote connections. Wire trunklines are normally installed to other units in proximity to the command posts.

(b) The wire platoon of the division communication company installs, operates, and maintains wire facilities at the division main CP. At the division alternate and administrative CP's, the wire platoon is assisted by wire personnel of the headquarters with which these installations are collocated. The communication company wire personnel also assist when required in installation of wire within the logistics support area.

(4) Teletypewriter

(a) At the division main CP, teletypewriter switching centers are normally installed in the division communication center and the FSCC by the division communication company. These teletypewriter switching centers are connected, normally by multichannel radio links, to higher headquarters, the division alternate CP, each regiment, and the logistics support element to provide continuous direct teletypewriter service between these units.

(b) At the division alternate CP, the division communication company installs a teletypewriter switching center. The artillery regiment installs a teletypewriter switching center at its fire direction center (FDC).

(c) The teletypewriter switching center at the division main CP and the division FSCC are interconnected by wire trunklines, and the teletypewriter switching center at the division alternate CP is connected by trunklines to the artillery regiment FDC switching center. These interconnections provide the division alternate CP the same flexible teletypewriter switching capability enjoyed by the division main CP. Other division units may be linked to this system by either wire or multichannel radio links.

(5) Visual.--Visual communications are easily misunderstood and their utility is limited during periods of poor visibility or when prohibited by security considerations. They are highly vulnerable to interception

by the enemy; or the enemy may use similar signals to deceive or confuse friendly elements. Visual signals must be coordinated with nearby friendly units, and the meanings assigned to certain visual signals must be in accord with standardized meanings prescribed by higher authority.

(6) Sound

(a) Sound systems incorporate the use of loudspeakers, public address sets, whistles, sirens, gongs, and similar devices for dissemination of alerts and warnings, ground and airborne psychological operations, and riot control. Their most common use at the division level is for dissemination of alerts and warnings within command posts.

(b) Sound signals are satisfactory only for short distances and their effectiveness may be greatly reduced by battle noises. They must be kept brief and simple to prevent misunderstanding. Since they are vulnerable to enemy interception and deception, their use may be restricted for security reasons.

c. Physical Communication Systems

(1) Messenger service is conducted on a scheduled or nonscheduled basis as the situation dictates. In some situations, messenger service will be the primary means of communication with certain units and should be used extensively, especially for high volume traffic of a nonurgent nature.

(2) Mail service is a type of physical communication system, and should be used for all traffic of sufficiently low precedence that the use of electrical or messenger transmission is not warranted.

d. Special Security Communications

(1) A special security communication team (SSCT) is normally assigned to each Marine division to provide a secure terminal facility for the special intelligence and special security office requirements of the division.

(2) Communication channels for the exclusive use of elements of the radio battalion to higher and subordinate headquarters, as required, must be provided. Additional information is contained in FMFM 2-3, Signals Intelligence/Electronic Warfare Operations (U).

411. COMBAT SERVICE SUPPORT

a. General.--Combat service support is provided by units organic to the division and the force service support group. These units provide the full range of combat service support functions required to conduct combat operations and augment the organic capability for combat service support which is resident in combat and combat support units within the division.

b. Division Units.--Combat service support units organic to the division include the truck company, headquarters battalion and the combat engineer battalion. See appendix A for the organization and mission of these units.

c. Force Service Support Group.--The FSSG provides all other combat service support requirements which are not within the capability of division units. The FSSG is composed of a headquarters and service battalion, supply battalion, maintenance battalion, motor transport battalion, engineer support battalion, medical battalion, landing support battalion, and four separate dental companies. The FSSG is structured to provide combat service support to one division/one wing deployed MAGTF. In garrison, it provides support to all major commands of the MAF to which assigned. Combat service support is provided as required by the division, wing, and force troops commanders. For a detailed discussion of the organization and employment of the FSSG, and its subordinate units in specialized tasks, see FMFM 4-1, Combat Service Support for Marine Air-Ground Task Forces; FMFM 4-3, Landing Support Operations; and FMFM 4-4, Engineer Operations.

SECTION 5

AMPHIBIOUS OPERATIONS

501. GENERAL

a. An amphibious operation is an attack launched from the sea by naval and landing forces embarked in ships or craft involving a landing on a hostile shore. An amphibious operation is conducted for the purposes of prosecuting further combat operations, obtaining sites for advanced naval or air bases, or denying the use of an area or facilities to the enemy. It includes planning, embarkation of troops and equipment, rehearsals, movement to the objective area, final preparation of the objective, the assault, and support of the landing force until termination of the amphibious operation. More detailed information on amphibious operations and their planning may be found in LFM 01, Doctrine for Amphibious Operations; LFM 02, Doctrine for Landing Forces; and FMFM 3-1, Command and Staff Action. Lesser included types of amphibious operations are amphibious raids, demonstrations, and withdrawals. See FMFM 8-1, Special Operations, for a detailed discussion of these operations.

b. The Marine division is organized and equipped to conduct an amphibious assault. It can be the ground element of the landing force or part of the assault element of a larger landing force.

c. In this section, the Marine division will be considered the ground element of the air-ground task force in amphibious operations.

502. BASIC CONCEPTS

a. Characteristics of an Amphibious Operation.--The amphibious operation integrates virtually all types of sea, air, and land forces in a concerted military effort. This balanced force is both mobile and flexible, giving it the capability to strike with great force at a selected site within the enemy defense system. The amphibious task force should have naval supremacy against enemy surface and submarine forces and preponderant air superiority and a substantial superiority over enemy ground forces defending the objective area. The salient limiting characteristics of the attacking force is the necessity for building up combat power ashore from initial zero to fully coordinated striking power. The amphibious attack is conducted in the face of certain natural forces including seas, surf, and features of hydrography normally not encountered in land warfare. However, the advent of helicopterborne assaults in conjunction with the conventional surface assaults has served to offset certain obstacles by the landing force in terms of natural forces or by the nature of hydrography and terrain in the landing area. The massing of troops and materiel, their movement to the objective area, and the landing, usually under enemy fire, impose unique tactical and logistical problems.

b. Phases of an Amphibious Operation.--The phases of an amphibious operation are a sequence of events or activities. Certain phases may overlap in point of time, but occur in the following sequence:

(1) Planning Phase.--The period extending from the issuance of the initiating directive to embarkation. During this phase, the necessary preparatory measures, including coordinate planning, are effected. Although planning does not cease with the termination of this phase, it is useful to distinguish between the planning phase and the subsequent operational phases, since a marked change occurs in the relationship between the commanders of the various service components at the time the planning phase is terminated and the operational phases begin. During the planning phase, the commander amphibious task force coordinates planning. Any differences which commanders of the components of the amphibious task force cannot resolve are referred to their common superior. At the commencement of the operational phases, the commander amphibious task force assumes full responsibility for the entire force and the operation. (See par. 504.)

(2) Embarkation Phase.--The period during which the forces, with their equipment and supplies, embark in assigned shipping. This phase commences the operational phases of the amphibious assault. (See par. 514.)

(3) Rehearsal Phase.--The period during which the prospective operation is rehearsed for the purpose of testing the adequacy of plans, the timing of detailed operations, and the combat readiness of participating forces; ensuring that all echelons are familiar with plans; and testing communications. (See par. 515.)

(4) Movement Phase.--The period during which the components of the amphibious task force move from the points of embarkation to the objective area. This move may be via rehearsal, staging, and/or rendezvous areas. The movement phase is completed when the components of the amphibious task force arrive in their assigned positions in the objective area. (See par. 516.)

(5) Assault Phase.--The period between the arrival of the major assault forces of the amphibious task force in the objective area and the accomplishment of the amphibious task force mission. Development of the area for its ultimate use may be initiated during this period. (See par. 518.)

c. Termination of Amphibious Operations

(1) The termination of the amphibious operation is predicated on the accomplishment of the mission of the amphibious task force in accordance

with the specific conditions contained in the governing instructions set forth in the initiating directive. The firm establishment of the landing force ashore is usually specified as one of these conditions.

(2) The landing force is regarded as firmly established ashore when in the opinion of the commander landing force:

(a) The force beachhead has been secured.

(b) Sufficient tactical and supporting forces have been established ashore to ensure the continuous landing of troops and material requisite for subsequent operations.

(c) Command, communications, and supporting arms coordination facilities have been established ashore.

(d) The commander landing force has stated that he is ready to assume full responsibility for subsequent operations.

(3) When the commander amphibious task force and the commander landing force are satisfied that the conditions specified in the initiating directive for terminating the amphibious assault have been met, the commander amphibious task force will report these facts to higher authority designated in the initiating directive. This authority will then terminate the amphibious operation, dissolve the amphibious task force, and provide additional instructions as required, to include command arrangements and disposition of forces to be thereupon effective.

503. PLANNING

a. General.--While every operation requires careful and detailed preparation, amphibious operations are characterized by the need to coordinate in detail the actions of all forces involved; the complexity of logistics support activities; the need for precise timing in providing support to the combat units by air, naval gunfire, and artillery; and the need for effective command relationships.

b. Planning Directives

(1) Using the amphibious task force planning directive as a guide, the commander landing force prepares a planning program which outlines the sequence in which planning is to be carried out and the deadlines by which plans are to be completed. There is no prescribed format for a planning program. Upon the basis of this program, however, the commander landing force issues a planning directive that prescribes a schedule necessary to meet his planning deadlines. Similarly, the division may issue planning directives based on programs established. If a planning directive is not published at the division level, instructions to subordinates necessary to meet planning deadlines may be promulgated in the form of planning guidance at the initial planning conference.

(2) Another method of promulgating the planning directive is the planning schedule. It is coordinated by the chief of staff and shows graphically the specific period of time allowed for the completion of each planning task.

c. Planning Guidance.--Planning guidance is a brief outline, either oral or written, presented by the commander to his staff and subordinate commanders which will set the scope of the operation and the manner in which he visualizes that the operation will be conducted. Planning guidance is derived from information contained in the initiating directive and other instructions, and serves as a guide for the preparation of staff estimates.

c. Planning memorandums.—As information becomes available and additional guidance and decisions are received, the division commander issues planning memorandums. They are issued prior to the preparation of formal plans so subordinate commanders are aware of all details affecting their own planning.

504. FUNDAMENTALS OF AMPHIBIOUS PLANNING

a. General.—Amphibious planning is concurrent, parallel, and detailed. These features distinguish amphibious procedures from those of normal land operations. The differences noted above are due to the complex nature of the amphibious operation and the necessity for integrated naval, land, and air operations.

b. Concurrent Planning.—Concurrent planning is conducted simultaneously by two or more echelons of the same command and by corresponding echelons of different commands. To ensure that this planning can be initiated by subordinate commands, information must be announced early at planning conferences or briefings and by the use of planning memorandums, orders, and draft plans.

c. Planning by Parallel Chains of Command

(1) Planning by parallel chains of command refers to the planning procedures resulting from the close and continuous coordination between corresponding naval and troop echelons. This parallel planning usually cannot begin until certain basic decisions have been announced by the amphibious task force and the landing force commanders.

(2) Parallel and concurrent planning is most efficient when the commanders and staffs of corresponding echelons are assembled in the same locality. If this is not practicable, the exchange of staff visits and the exchange of liaison officers are highly desirable.

d. Detailed Planning.—When the basic decisions have been made at the landing force level and are passed down to the division, planning becomes more detailed and is directed toward the preparation of the operation plan, administrative/logistics plan, and the embarkation plan.

505. PLANNING SEQUENCE

The planning sequence for a landing force can be found in FMFM 3-1, Command and Staff Action. The planning sequence for a division when it is the ground element of the landing force is as follows:

a. The mission (step 1) is assigned by higher headquarters or is deduced or developed by the commander. He analyzes the mission to develop the specific tasks to be performed to accomplish it.

b. The commander collects information available (step 2) from his own staff and from higher, lower, and adjacent headquarters.

c. Based upon this information, the commander prepares his planning guidance (step 3). This is his assistance to his staff in preparing or revising their estimates. Planning guidance may include the commander's analysis of the mission, his general plan for using nuclear weapons or chemical agents, any other factors which he considers important, and any courses of action which he wishes developed. Unless higher headquarters has directed a specific course of action, he does not select a course of action at this time, because doing so would prevent objective and unbiased staff estimates. The amount of planning guidance varies with each mission, the volume and validity of information, the situation, and the experience of the commander. The commander's guidance is usually incomplete, but it is developed and expanded as more information is obtained. It is not limited to one specific time in this sequence, but his initial guidance should precede the preparation of staff estimates. The commander's guidance may include the need for essential elements of information by a particular time, to relate with other available information and intelligence in order to assist him in reaching a logical decision.

d. Based on the mission and the commander's planning guidance, the staff officers prepare their staff estimates (step 4). These estimates are coordinated among the staff sections which result in coordinated recommendations by the staff as to what actions the commander should take to accomplish his mission.

e. The commander considers the recommendations of his staff, completes his own estimate (step 5), and arrives at his decision (step 6). He amplifies his decision by stating his overall concept of the operation (step 7). The concept set forth in subparagraph 3a of the operation order is a refinement of the overall concept announced by the commander.

f. A careful analysis based on a complete understanding of the decision and the commander's concept of the operation leads to a determination by all staff members of the actions required by the command to carry the operation to successful completion and the preparation of plans (step 8).

g. Plans normally are submitted to the commander for approval (step 9) before being published as orders (step 10). (Step 9 may be omitted based on the urgency of the situation and authority delegated by the commander.)

h. Command and staff supervision of the execution of orders is a continuous action, and must be done to ensure successful accomplishment of the mission based on the commander's decision and his concept of the operation.

506. PLAN OF ATTACK

a. The plan of attack provides for the employment of various elements of the division and consists of the scheme of maneuver, the landing plan, and the plan of supporting fires.

b. The plan of attack is developed from the concept of operations ashore, as refined for detailed planning. In turn, the plan of attack usually is presented in broad outline in the final concept which becomes a part of the operation plan.

507. DIVISION RESERVE

a. The reserve of the division in an amphibious operation consists of a maneuver element, usually one RLT. The reserve is the principal means by which the division commander, if required, can influence the course of action ashore. Commitment of the reserve when afloat is more complex than in normal operations for the following reasons:

(1) While afloat, its commitment may be delayed pending availability of landing craft, assault amphibious vehicles, or helicopters.

(2) Landing of the reserve by waterborne means may also depend on the availability of a suitable landing beach near the area of intended employment.

(3) Because of the decentralized nature of initial operations ashore, difficulty may be encountered in coordinating the landing of the reserve with operations ashore.

(4) The early landing of the reserve on congested beaches makes a favorable target for nuclear attack.

b. Maximum flexibility of the reserve is maintained until a specific need for its commitment arises. When the enemy possesses a nuclear capability, the landing force must be widely dispersed. Under such conditions, it can be difficult to determine when and where the reserve should be committed. The utilization of helicopters to transport the reserve provides the division with a capability for the rapid and flexible employment of the reserve, when required.

508. OPERATION PLAN AND ANNEXES

a. Scope and Purpose.--The operation plan is the instrument through which the commander translates his concept of operations into specific tasks for subordinate commanders. It details the situation, the mission, the decision, the plan of action, and such matters as to the method of execution that are necessary to ensure coordinated action by the command as a whole.

b. Responsibility for Preparation

(1) During the preparation of the plan, the commander provides continuing guidance and exercises close personal supervision. The preparation of detailed parts of the plan, including appended portions, is assigned to various staff officers. The division commander, however, must approve all portions of the plan before they are issued.

(2) Staff activity in the preparation of plans is directed and coordinated by the chief of staff. General and special staff sections prepare those portions which pertain to their particular functional area or specialized fields. The assembly of the complete operation plan and the coordination of its component parts are functions of the G-3.

c. Appended Material

(1) At division, the information which is included in the operation plan is so detailed, specialized, and technical that it does not lend itself to inclusion in the parent document, even though a maximum of simplification is achieved through use of SOP's. A great deal of the necessary information, therefore, is included in annexes to the operation plan. There is no standard list of annexes, and no limitation on the number that may be employed. Annexes may include:

(a) Material accompanying a plan to preserve brevity, clarity, and simplicity within the body of the plan or order.

(b) Information used to amplify a plan, when such information is of limited application to the command as a whole or is primarily technical in nature.

(c) The substance contained in a plan or order of a subordinate or supporting unit, for example, supporting air and naval gunfire.

(2) When not accompanied by annexes, the plan itself must be complete and must contain all information essential to the effective employment of the elements of the command.

(3) The requirement for detailed treatment in many areas will vary with the level or mission of the issuing command. Whereas the requirement for annexes by division normally will be all inclusive, the requirement by the infantry battalion may be extremely limited. See FMFM 3-1, Command and Staff Action, for formats of orders and annexes.

509. INTELLIGENCE

a. The first objective of intelligence functioning in amphibious operations is to reduce as far as possible all uncertainties regarding the physical environment and the enemy situation. A second major objective is the formulation and supervision of counterintelligence measures designed to conceal landing force intentions and activities and to destroy the effectiveness of enemy intelligence activities.

b. Intelligence planning commences with receipt of the initiating directive and continues throughout the operation.

c. The joint nature of an amphibious operation and the dependence of the landing force upon outside sources, particularly naval agencies, for intelligence support require close coordination between the intelligence activities of the landing force and the amphibious task force. Intelligence derived from all sources including naval sources, ground and aerial reconnaissance, signal intelligence and electronic warfare sources, and electronic sensor information should be carefully collated to provide the commander with a timely all-source integrated intelligence product.

d. The commander directing the conduct of an amphibious operation is responsible for providing or procuring adequate intelligence support, including support from agencies external to the amphibious task force, during all phases of the operation.

e. The commander landing force is responsible for determining the intelligence requirements of the landing force as a whole. Additionally, the commander landing force, through the commander amphibious task force, informs supporting intelligence agencies of the specific intelligence requirements which cannot be met by his organic intelligence means.

f. Factors affecting the production of intelligence in an amphibious operation include:

(1) Little or no opportunity exists at any echelon for personal reconnaissance prior to the assault.

(2) Planning must be based on intelligence provided largely by higher commands.

(3) All echelons require detailed intelligence on the area of operations and the enemy prior to the assault.

(4) Comprehensive target intelligence is required in order to facilitate the detailed planning of fire support.

(5) Prior to the assault, only limited employment of organic collection means of the landing force is possible.

(6) Employment of landing force collection means, prior to D-day, must be approved, supported, and controlled by the commander amphibious task force or higher commander.

(7) The elapsed time between the receipt of the mission and the execution of the landing requires that intelligence be disseminated promptly to all echelons as it is developed.

(8) The time lapse from the initiation of a request for information until the receipt of the information may be extensive.

(9) Special provisions are required for the timely and secure dissemination of intelligence throughout the movement to the objective phase

g. For detailed information, see FMFM 2-1, Intelligence; FMFM 2-2, Amphibious Reconnaissance; and FMFM 2-3, Signals Intelligence/Electronic Warfare Operations (U).

510. FIRE SUPPORT PLANNING

a. General.--Fire support planning is intended to produce integrated fire support plans which employ all available supporting arms with maximum effectiveness in support of the scheme of maneuver.

b. Fire Support Planning Process.--The fire support planning process is a coordinated effort. The steps in this process are:

(1) Acquisition of targets (the detection, identification, and location of targets in sufficient detail to permit effective employment of weapons).

(2) Analysis of targets (the examination of potential targets to determine military importance, priority of attack, and weapons required to obtain a desired level of damage or casualties).

(3) Determination of requirements for supporting arms (numbers and types) to attack targets.

(4) Assignment of targets to each supporting arm in accordance with their capabilities (preparation).

(5) Determination of requirements for supporting arms to support scheme of maneuver.

(6) Preparation of detailed instructions for the employment of each supporting arm to accomplish (4) and (5) above.

(7) Preparation of coordinating instructions required to coordinate and control the fires of supporting arms.

(8) Target designation system. (See FMFM 7-1, Fire Support Coordination.)

c. Special Considerations.--Air, artillery, and naval gunfire to some degree have overlapping capabilities. However, each is necessary during an amphibious assault since each has unique capabilities not duplicated by the others. Each may have the technical or theoretical capability to attack the same target but may not be operationally capable of doing so at the same time or when required due to such limitations imposed by weather, terrain, hydrography, visibility, trajectory, range, communications, ordnance, or operational requirements. The determination of the requirements for each supporting arm must be based upon the unique operational capability possessed by that supporting arm. Thus, in assault operations where objectives are deep and extensive use of helicopters is contemplated, major dependence may be placed upon air support and helicopter-transported artillery for continuous support of the attack. In addition, there may be situations in which dependence for prelanding preparation must be placed upon air support. When artillery can be emplaced on offshore islands or landed with helicopterborne assault forces on objectives within range of landing beaches, it may assume a role in providing fire support for the surface landing, thereby reducing the requirement for air and naval gunfire support.

d. Coordinated Planning.--The artillery, naval gunfire, and air representatives coordinate their respective fire plans. This is accomplished by working closely together under the supervision of the fire support coordinator. Requests and requirements of subordinate units are given due consideration in the formulation of plans. See FMFM 7-1, Fire Support Coordination, for a discussion of fire planning. See FMFM 7-2, Naval Gunfire Support; FMFM 5-1, Marine Aviation; and FMFM 7-4, Field Artillery Support, for a discussion of detailed fire support plans.

511. FIRE SUPPORT COORDINATION

a. General.--In an amphibious operation, responsibility for overall coordination of fire support is vested in the commander amphibious task force. However, throughout the operation, it is the responsibility of the commander landing force to determine and coordinate landing force requirements for supporting arms. See FMFM 7-1, Fire Support Coordination, for a detailed discussion.

b. Supporting Arms Coordination Center (SACC).--The SACC is a Navy staff agency aboard a designated command ship. The SACC is staffed with naval surface and air representatives. It is the Navy counterpart of the landing force FSCC.

c. Fire Support Coordination Center

(1) The FSCC is the Marine staff agency charged with the accomplishment of coordinated planning of supporting arms at every infantry command level from the battalion through the landing force level. In those operations where the division comprises the total ground element involved, the commander landing force normally exercises his responsibilities for fire support coordination through the division FSCC.

(2) The FSCC is comprised of the designated fire support coordinator, supporting arms representatives, a target information officer, and the required operations, intelligence, and communication personnel. The coordination of supporting fires with the plan of operation falls within the purview of the operations officer (G-3). The G-3, therefore, has general staff supervision of the FSCC function. The FSCC is an advisory, planning, and coordinating element and does not possess either command or control of the supporting arms means as such. The artillery, naval gunfire, and air officers have special staff functions that provide them access to the commander and his staff in the routine performance of duty.

(3) The artillery regimental commander is designated as the division fire support coordinator. He exercises such authority as is delegated to him to accomplishing the tasks of planning and coordinating fire support.

(4) The FSC supervises the overall fire support planning and coordination. The individual fire plans (artillery, naval gunfire, air) prepared by supporting arms representatives and/or their control agencies are integrated into the fire support appendix to the operations annex of the operation order.

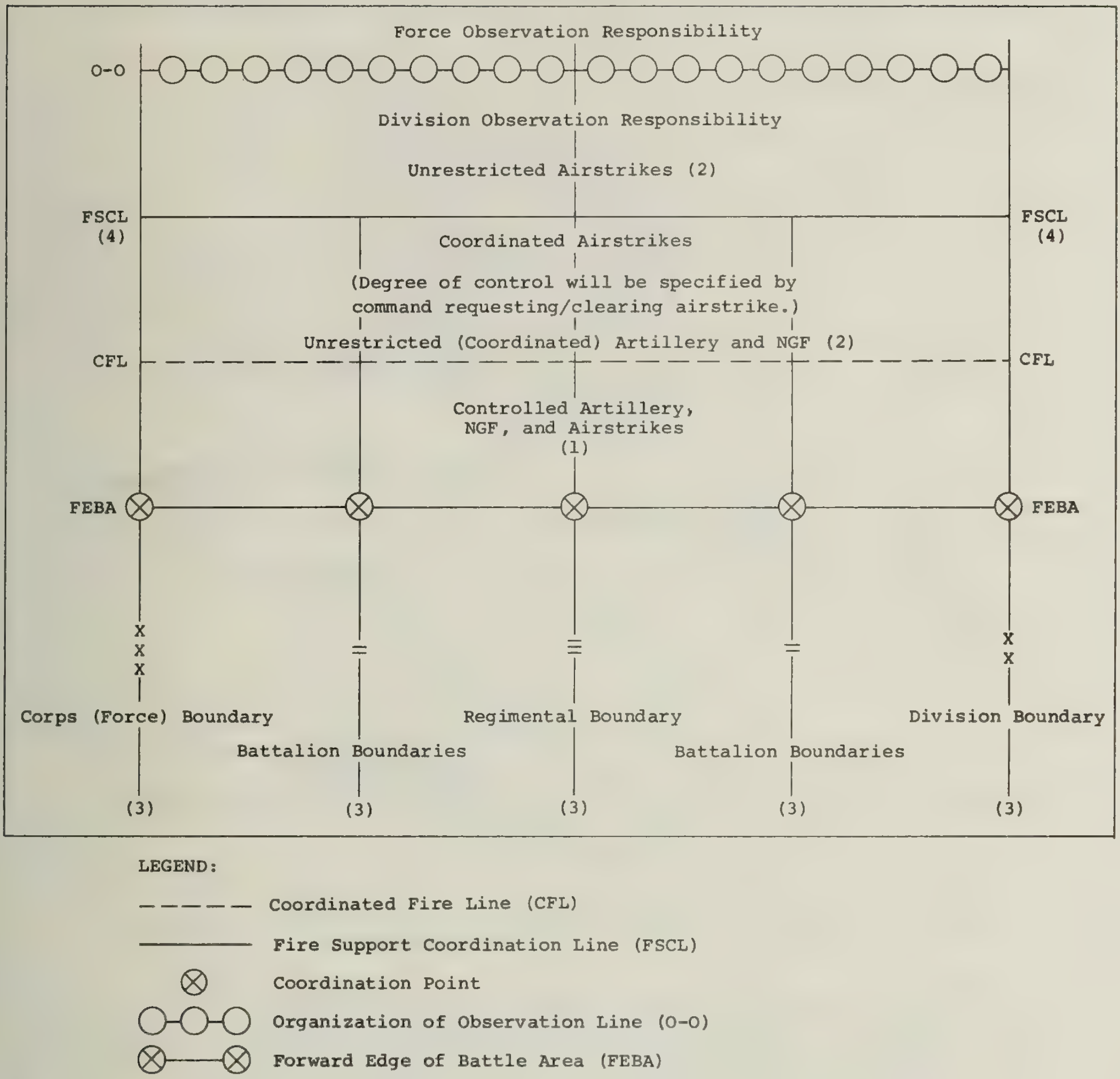
d. Coordinating, Controlling, and Limiting Measures

(1) General.--The coordination of supporting arms requires certain coordination, controlling, and limiting measures to ensure safety and to facilitate control. (See figs. 4, 5, 6, and 7.) These measures prescribe limitations or responsibilities for subordinate and supporting unit commanders. In the offense, care is taken to place coordination lines beyond the objective. This precludes the necessity for repositioning or modifying coordinated fire lines (CFL's) and fire support coordination lines (FSCL's) during periods of critical action.

(2) Zone of Fire.--A zone of fire is an area within which a designated ground unit or fire support ship delivers or is prepared to deliver fire support. Fire may or may not be observed. It is used to control the fire, laterally and in depth, to best support the action of the supported unit. An artillery unit assigned a tactical mission of direct support, the zone of fire corresponds to the zone of action of the supported infantry unit. Assigned a general support mission, the zone of fire includes responsibility for support of the entire area forward of the supported force. In the case of a direct or general support ship, the zone of fire should correspond to the zone of action, tactical area of responsibility (TAOR), or sector of defense of the supported unit.

(3) Coordinated Fire Line.--The CFL is a line beyond which conventional surface fire support means (mortars, field artillery, and naval gunfire ships) may fire any time within the zone of the establishing headquarters without additional coordination. It simultaneously serves two purposes: first, it gives artillery and fire support ships freedom to attack targets beyond it without obtaining approval or coordinating with the supported commander in whose zone of action targets are located; and second, it provides the supported commander with an area in which his troops can operate without being unnecessarily endangered by friendly artillery and naval gunfire.

(a) Responsibilities.--The coordinated fire line is the responsibility of the supported commander(s). Each supported commander


Force Observation Responsibility
O-O
Division Observation Responsibility
Unrestricted Airstrikes (2)
FSCL (4)
FSCL (4)
Coordinated Airstrikes
(Degree of control will be specified by command requesting/clearing airstrike.)
Unrestricted (Coordinated) Artillery and NGF (2)
CFL
CFL
Controlled Artillery, NGF, and Airstrikes (1)
FEBA
FEBA
XXX
XX
Corps (Force) Boundary
Regimental Boundary
Division Boundary
Battalion Boundaries
Battalion Boundaries
(3)
(3)
(3)
(3)
(3)
LEGEND:
Coordinated Fire Line (CFL)
Fire Support Coordination Line (FSCL)
Coordination Point
Organization of Observation Line (O-O)
Forward Edge of Battle Area (FEBA)

NOTES:

1. All controlled fires are considered to be fully coordinated.

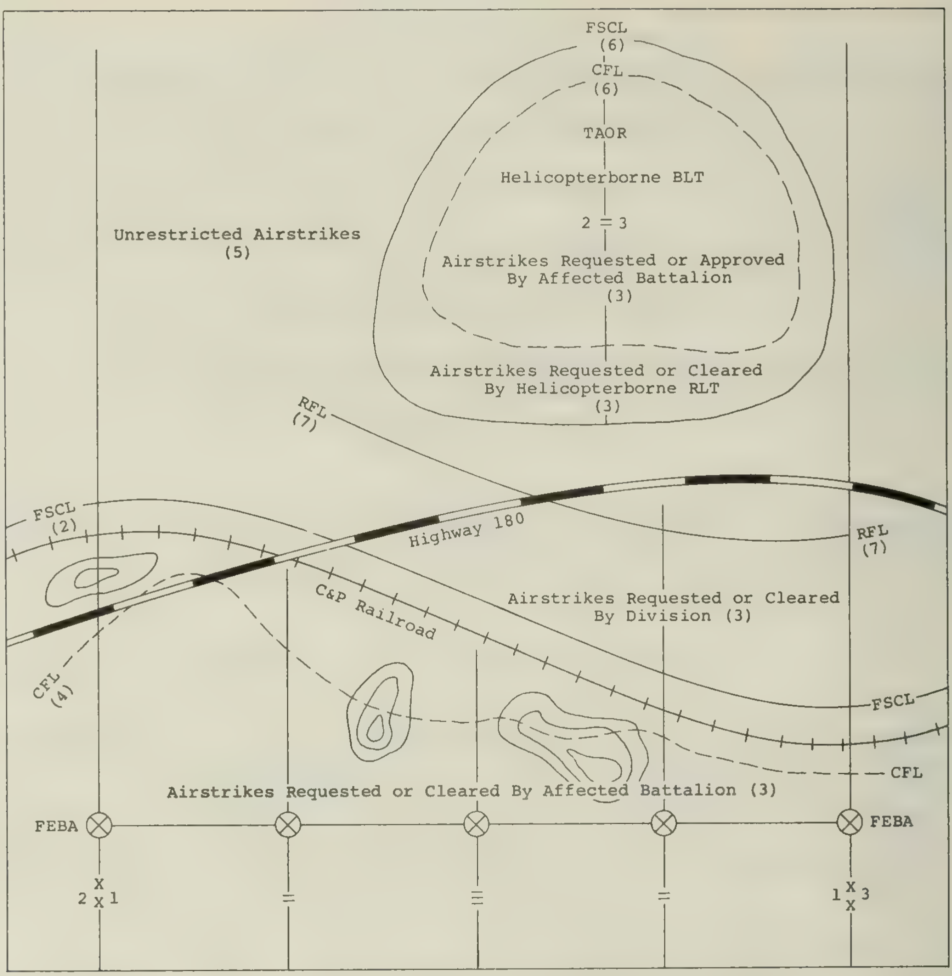
2. Unrestricted fires are coordinated only to the degree necessary to assure aircraft safety and to preclude duplication of target attack.

3. Fire support coordination responsibilities extend to the rearmost boundary of the unit indicated.

4. The fire support coordination line (FSCL) has been prescribed in STANAG 2099, Fire Coordination in the Land/Air Battle, to coordinate supporting fire by forces not under control of corps which may affect current tactical operations and is applicable to amphibious operations.

   All fires, regardless of location, are integrated with the supported unit's plan of operations through internal coordination by control agencies of the supporting arm(s) involved.

Figure 4.--Example of Coordination and Limiting Measures.



NOTES:

1. Figure not to scale, nor meant to show typical employment of units.
2. FSCL is established by the commander landing force.
3. Degree of control or coordination required for an airstrike will be specified by the commander requesting or clearing the strike.
4. Although the CLF is primarily an artillery and NGF control and coordinating measure, it can also be used to delineate responsibility for control and coordination of airstrikes without modification or decreasing its value in relation to artillery and NGF support.
5. Airstrikes beyond the FSCL are unrestricted in that troop and aircraft safety are normally not critical factors nor is there a requirement for control by FAC's, TAC(A)'s, or ASRT's.
6. The FSCL and the CFL may be used by a helicopterborne force occupying a TAOR when their commander requests their use or when their use is directed by the commander exercising operational control. However, when appropriate, the trace of the TAOR may be used as the NFL or both the CFL and the FSCL.
7. The restrictive fire line (RFL) is established to coordinate fires between two converging forces. It is used to regulate flat trajectory and high angle fire and offensive airstrikes. Fires with effects extending beyond this line will be coordinated with the unit on the other side.

Figure 5.--Employment of Fire Support Coordination Measures.

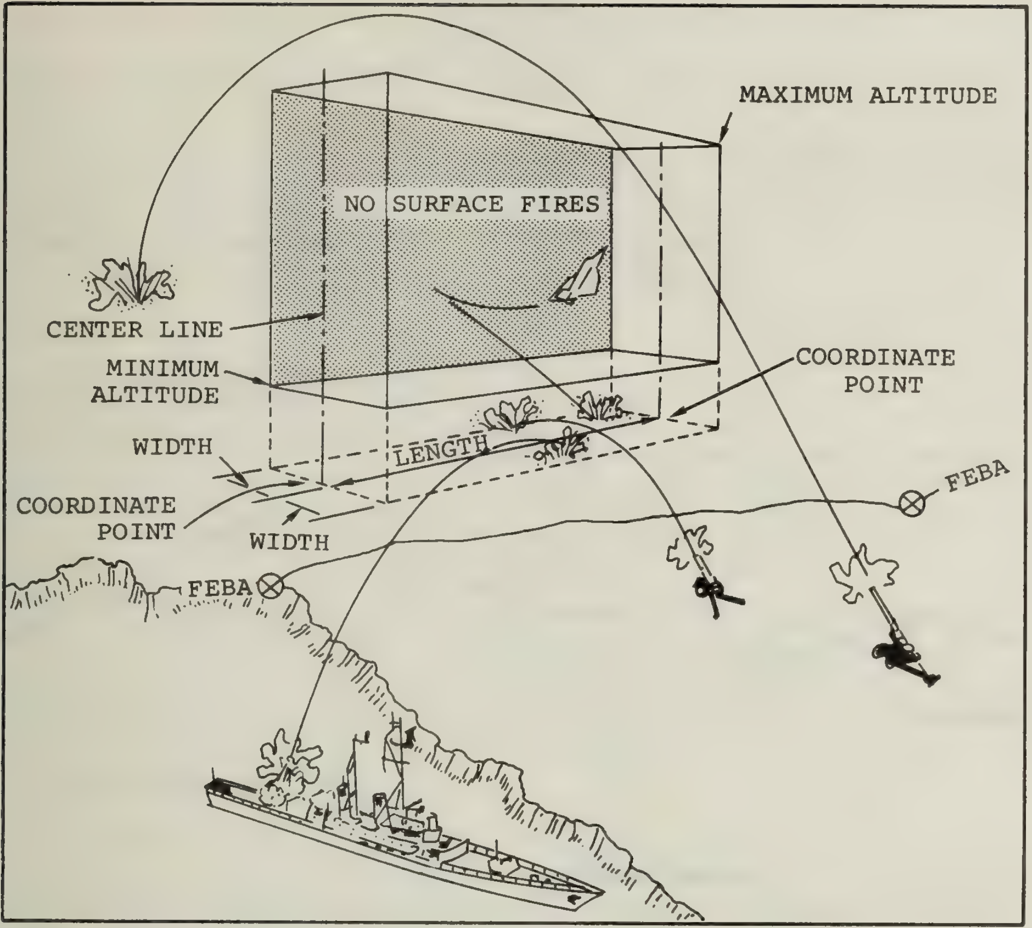


Figure 6.--View of a Typical Airspace Coordination Area.

from the infantry battalion up is successively responsible for selecting or approving a recommended location as it relates to his zone of action, tactical area of responsibility, or sector of defense. The location of coordinated fire lines recommended by the infantry battalion commanders is forwarded up the chain of command. A coordinated fire line is established by the ground combat element. Emergency or necessary changes to the established CFL submitted by the lower echelons in their respective zones of action are valid unless countermanded.

(b) Selection.--The location of the CFL is based on such factors as the scheme of maneuver, patrol plans, and the troop safety desires of the infantry commander.

(c) Dissemination.--The location of the established CFL of the ground combat element is disseminated through the various fire support cordination and fire control agencies to infantry units and the supporting arms concerned.

(4) Restrictive Fire Line (RFL).--The RFL is a line established between converging friendly forces (one or both may be moving) that prohibits fires or effects from the fires across the line without coordination

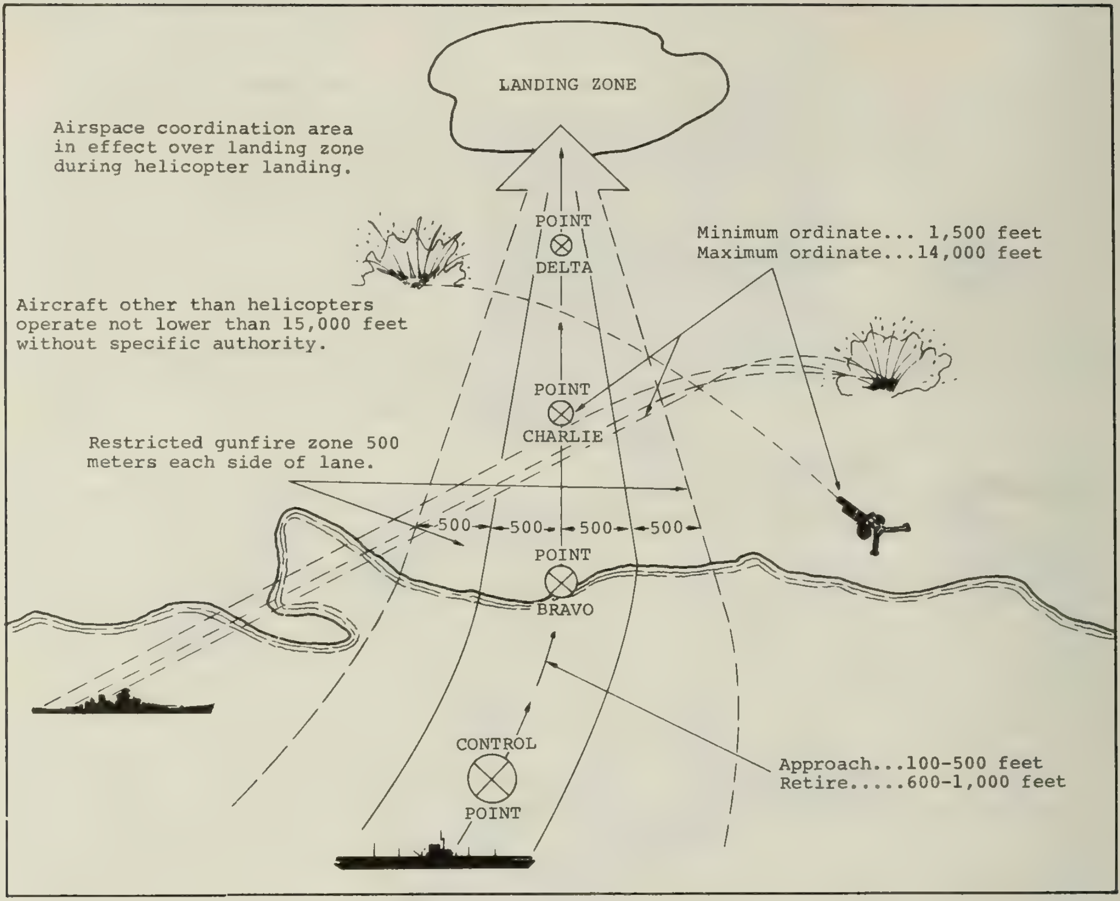

LANDING ZONE
Airspace coordination area in effect over landing zone during helicopter landing.
POINT DELTA
Minimum ordinate... 1,500 feet
Maximum ordinate...14,000 feet
Aircraft other than helicopters operate not lower than 15,000 feet without specific authority.
POINT CHARLIE
Restricted gunfire zone 500 meters each side of lane.
500
500
500
500
POINT BRAVO
CONTROL POINT
Approach...100-500 feet
Retire.....600-1,000 feet

Figure 7.--Trajectory Limitations Across Helicopter Approach Lanes.

with the affected force. It is used to regulate all supporting fires as well as offensive airstrikes. Neither force will deliver fires or offensive airstrikes across the RFL without prior clearance of the other. As juncture becomes imminent, the RFL is moved as close to the stationary force as possible to allow maximum freedom of action to the linkup force. (See par. 612f.) The responsibility for fire support coordination for the forces, once the juncture has been effected, must be clearly established in the operation plan or order.

(5) Fire Support Coordination Line.--As utilized in amphibious operations, the FSCL is a line beyond which all targets may be attacked by any weapon system (including aircraft and special weapons) without endangering troops or requiring additional coordination with the establishing headquarters. The effects of any weapon system may not fall short of this line. In land warfare involving a force larger than the MAF, the FSCL serves the purpose of requiring coordination of all supporting fires by forces not under control of the MAF which may effect current tactical operations. In either case, the FSCL simultaneously serves two purposes:

(a) It provides ground commanders with sufficient control of aircraft to ensure troop safety, aircraft safety, coordination of airstrikes with ground maneuver, and precludes unnecessary duplication of supporting fires.

(b) Provides aviation commanders, air control agencies, and pilots of aircraft with sufficient information to clearly delineate the degree of control or coordination required before aircraft can attack ground targets in the amphibious objective area (AOA), as applicable.

(c) For further information, see FMFM 7-1, Fire Support Coordination.

(6) Organization of Observation (O-O) Line.--The O-O line is a line for the coordination of field artillery observation which divides the primary responsibility for observation between landing force artillery and division artillery. In MAGTF's, the designation is made by the commander landing force upon the recommendation of the fire support coordinator. In U.S. Army and Allied forces which have a designated corps artillery commander, the O-O line is designated by such commander. See FMFM 7-4, Field Artillery Support, for command relationships.

(7) Nuclear Safety.--When necessary, strike warning messages, in format as set forth in FMFM 11-3, Employment of Chemical Agents, and FMFM 11-4, Staff Officers' Field Manual: Nuclear Weapons Employment Doctrine and Procedure, are used to announce troop safety measures. If timing is essential in the exploitation of nuclear weapon employment, close coordination can be achieved through use of phase lines, restrictive fire lines, and other such control measures.

e. Airspace Coordination Areas (ACA).--As a safety measure for friendly aircraft on close air support missions, ACA's are established which provide an airspace that is reasonably safe from friendly, surface-delivered, nonnuclear fires. Airspace coordination areas should be used only when the risk to friendly aircraft is sufficiently great to justify the attendant loss of surface-delivered fire support. For certain operations, a series of airspace coordination areas may be established, as in the case of helicopter approach and retirement lanes. The fire support coordination center provides, particularly at infantry battalion and regimental levels, a means of coordination that precludes the necessity for using ACA's on most air support missions. The commander has, through his FSCC, positive control or knowledge of surface fire support being delivered in his area of operation. He has positive communications with the aircraft through the tactical air control party. Accordingly, with these means readily available, the commander can control or cease surface fire support whenever friendly aircraft may be endangered. For an illustration of the ACA used in landing force operations, see figure 6. The commander requesting an air support mission will recommend the ACA if required and disseminate the plan through his FSCC and artillery communication channels. Higher echelons will not impose an ACA contrary to the recommendations of the requesting agency unless the need is clearly indicated. Normally, only one ACA will be employed. It may encompass an entire division front, or portions thereof, depending on the flight patterns employed by the attacking aircraft.

f. Trajectory Limitations.--Trajectory limitations are imposed on naval gunfire (and artillery) to permit fire support without interrupting helicopter operations. When possible, naval gunfire ships (artillery units) are positioned on either side of helicopter approach lanes in order to permit fire support without interrupting helicopterborne operations. To permit continuous fire support, a system of flight restriction and naval gunfire (artillery) trajectory limitations may be invoked. Such a system may require that over the approach and retirement lanes, helicopters normally operate at altitudes less than 1,000 feet with high-performance aircraft operating at altitudes exceeding 15,000 feet, thus affording safe ordinates for surface support weapons between 1,500 and 14,000 feet. This plan does not affect the use of airspace coordination areas discussed above. By using trajectory charts, the naval gunfire (artillery) officer can ascertain the areas in which each fire support ship (artillery unit) is able to place fire and thereby has an immediate guide for assigning ships to attack critical targets. (See fig. 7.)

g. Additional Coordination Measures.--Coordination of nonnuclear, nuclear, and chemical fires, involving troop safety and tactical considerations that may affect adjacent units, is required. A system of warning should be planned and utilized when necessary for missions that are affected by changing meteorological conditions. Smoke and illumination fires that extend into adjacent units' areas should be coordinated with the affected units. Instruction should cover the restrictions, if any, relative to the employment of any special or new types of fuzes and ammunition.

512. COMMUNICATIONS

a. General

(1) In both planning and execution, the amphibious operation is highly complex. This distinguishing characteristic is most clearly reflected in the intricate system of communications required to support an amphibious operation. There are four fundamental requirements for effective communications which remain constant: reliability, speed, security, and flexibility.

(2) In an amphibious operation, certain tasks possess characteristics sufficiently peculiar as to require special communication support. These include:

(a) Planning.

(b) Intelligence collection and dissemination.

(c) Embarkation.

(d) Movement to the objective area.

(e) Ship-to-shore movement.

(f) Administration.

(g) Naval gunfire support.

(h) Air support, including helicopter operations during the ship-to-shore movement and for logistics support.

(i) Logistics.

b. Planning

(1) Communication planning begins simultaneously with general planning. General operational requirements imposed on the communication system are translated into all of the specific technical requirements to support the tactical and logistical plans. Communication representatives of each echelon should be fully informed of operational planning details and should meet frequently and work together until the communication plan is completed.

(2) In planning his communication system, the division commander must establish communication liaison with higher headquarters to determine the demands to be made on the division system by that headquarters. He must also effect close liaison with his subordinate commanders to ensure that he provides them with the necessary support. In the event requests of subordinates cannot be met, and where additional communication support is required, the division commander submits the requirements to the commander landing force.

c. Related Planning.--To varying degrees, all functional aspects of an amphibious operation are concerned with communications. It may be a function that depends on communications for the accomplishment of its purposes, or it may be an activity which lends support to the establishment and maintenance of the communication system. Within the division, coordinated planning will include the following:

(1) Operations.--Task organization, scheme of maneuver, rate of advance, location of units, proposed axis of communication, and other requirements such as communications for a tactical representative with a TACLOG group. Additionally, coordination is required to determine the extent of communication deception and electronic countermeasures to be employed in the deception plan and/or electronic warfare plan. Also, future friendly requirements for major communication-electronics installations in the objective area must be determined in order to direct capture and exploitation rather than destruction of any such important facilities.

(2) Intelligence.--Communication requirements for intelligence activities must be addressed in order to ensure rapid collection, processing, and dissemination of perishable information on which the generation and success of operations will be based. Specific consideration must be given to:

(a) Requirements for communications of specialized intelligence units which are attached to or in support of the division.

(b) Requirements for special security communications for the division and supporting units.

(c) Providing communications security (COMSEC) material, measures, and procedures necessary to provide effective counterintelligence means in support of operational security.

(3) Logistics.--Initial allowances and resupply of communication-electronics equipment and spare parts, location of logistics installations, special equipment availability, and communication requirements for logistics representatives with TACLOG groups.

(4) Fire Support.--Coordination required for frequencies, call signs, special equipment requirements, special codes, any additional

communication personnel requirements, and any technical communication data concerning fire support employment.

(5) Embarkation.--Communication requirements for the embarkation area and for control of the movement to the embarkation area; priority of loading and landing communication-electronics equipment and personnel; and stowage of communication-electronics equipment, including adequate physical security for stowage of crypto and classified publications, while en route to the objective.

(6) Detailed Information.--See FMFM 10-1, Communications, for detailed information concerning communication planning in amphibious operations.

513. LOGISTICS SUPPORT

a. General.--The need to shift the logistics support system of the division from sea to land without loss of momentum is peculiar to amphibious operations. In order to accomplish this, the development of logistics support for an amphibious operation employs the following basic techniques:

(1) Landing of prescribed loads with individuals and units.

(2) Employment of floating dumps.

(3) Task organized helicopter support teams (HST's) to facilitate replenishment of helicopterborne forces.

(4) Execution of selective unloading.

(5) Execution of general unloading.

(6) Provisions for resupply.

b. Logistics Principles.--The requirement for a logistics support system which is austere, simple, balanced, and immediately responsive to the need of the landing force emphasizes the importance of the following principles:

(1) Planning and provision of logistics support is a command responsibility.

(2) Logistics support must be continuous, with impetus of support from seaward forward to the point of application ashore.

(3) The logistics support system should provide support direct from source to using unit, bypassing intermediate echelons of installations when possible.

(4) The logistics support system must be flexible, mobile, and simple in design and execution.

(5) The logistics support system must ensure economical application of logistics means by providing for adequate but not excessive means.

(6) Logistics support installations and facilities must be safeguarded.

(7) Coordination of tactics and logistics is mandatory.

(8) Combat elements must be relieved of logistics burdens to the greatest possible extent.

c. Shore Party and Helicopter Support Teams.--The shore party is a task organization formed to facilitate the movement of troops, equipment, and supplies across the beaches; to provide supply support to the landing force; to evacuate casualties and prisoners of war during the early stages of the operations ashore; and to facilitate the beaching, retraction, and salvaging of landing ships and craft. The helicopter support team is a task organization formed and equipped for use in a landing zone to aid the landing and movement of helicopterborne troops, equipment, and supplies and to evacuate selected casualties and prisoners of war. These teams are not components of the shore party although their functions are related. For a detailed discussion of shore party and helicopter support team operations, see FMFM 4-3, Landing Support Operations.

514. EMBARKATION

a. General.--Embarkation is that phase during which the forces with their equipment and supplies are assembled and embarked in assigned shipping to meet the requirements of the landing force scheme of maneuver. For details on embarkation, see FMFM 4-2, Amphibious Embarkation.

b. Embarkation Planning

(1) Embarkation planning must begin early and proceed concurrently with all other planning. It requires constant coordination between all troop and naval command levels and a mutual understanding of the problems of each. It requires detailed knowledge of the characteristics, capabilities, and limitations of ships and their relationship to troops, supplies, and equipment to be embarked.

(2) Embarkation planning includes:

(a) Determination of shipping requirements.

(b) Development of detailed landing force and naval organizations for embarkation.

(c) Determination of desired assignment of landing force personnel, equipment, and supplies for each ship.

(d) Preparation of detailed loading plans and loading schedules.

(3) Plans for the assembly of assault shipping, and for the movement of troops to embarkation points, are prepared by the amphibious task force and landing force commanders, respectively. These plans must be closely coordinated, distributed as soon as possible to commands having operational control of the assault shipping and to troop units assigned to the amphibious task force. The plans are also distributed to area and base commanders concerned to permit early initiation of preliminary movements and preparations for embarkation. The assembly and movement plans are usually issued by the amphibious task force and landing force commanders, respectively, as separate documents in the form of embarkation schedules and movement orders.

c. Organization for Embarkation.--To simplify planning and facilitate execution, the division organizes into temporary task organizations for embarkation. These organizations are administrative in nature and are formed to simplify planning and facilitate execution of embarkation at all levels of command. The organization for embarkation consists of a temporary task organization established by the commander landing force and a temporary organization of Navy forces established by the commander amphibious task force. No standard troop or Navy organization is applicable to all embarkation situations. For this reason, the organization for embarkation conforms to the circumstances of the embarkation and to the requirements of the anticipated tactical situation. Upon completion of the embarkation phase, these task organizations dissolve.

(1) Landing Force Organization.--The landing force organization for embarkation may be composed of embarkation groups, embarkation units, embarkation elements, and embarkation teams. Formation of the various embarkation echelons depends upon the degree of decentralization of command control essential to the successful accomplishment of the embarkation phase.

(2) Embarkation Group.--The embarkation group has as its nucleus a major subdivision of the task organization of the landing force, such as a division, aircraft wing, force troops, brigades, or other comparable troop echelons. It is composed of two or more embarkation units when formed, a combination of units and elements when required, or it may consist of two or more embarkation teams if element and units are not formed. A transport group is a parallel naval organization.

(3) Embarkation Unit.--The embarkation unit is the next subordinate embarkation echelon below the embarkation group level. It consists of two or more embarkation elements when formed, depending primarily on the landing force organization for landing, the geographical locations of the embarkation areas, and the troop units. When a division comprises the embarkation group, there will usually be an embarkation unit built around each major ground combat organization (regiment or comparable organization), one for ground combat support organizations such as artillery, and one for service support organizations. A transport unit/landing ship unit is the parallel naval echelon.

(4) Embarkation Element.--The embarkation element when formed is the next subordinate echelon below the embarkation unit level. The embarkation element is organized only when a complex situation requires additional echelons for control in planning and execution of embarkation. Its characteristics parallel those of the embarkation unit except that its nucleus is normally the next lower echelon in the chain of command. The embarkation element consists of two or more embarkation teams grouped to conform to the organization for landing. A transport element/landing ship element is the parallel naval echelon.

(5) Embarkation Team.--The embarkation team is the basic troop organization for embarkation. It consists of the troops, supplies, and equipment embarked in a single ship. The single ship is the embarkation team's parallel naval echelon.

d. Loading.--The manner in which ships are loaded will determine the order in which equipment and supplies are available for unloading.

e. Types of Loading.--There are two general types of shiploading: administrative and combat.

(1) Administrative Loading.--Administrative loading gives primary consideration to the maximum utilization of troop and cargo space without regard for tactical considerations. Subsequent to unloading, equipment and supplies normally must be sorted before they can be used. Administrative loading is similar to commercial loading and is employed only for nontactical troop movements and some resupply shipments. It is not suitable for amphibious assault operations.

(2) Combat Loading.--Combat loading is the arrangement of personnel and the stowage of equipment and supplies aboard ship so that unloading can support the anticipated tactical operation of the embarked organizations. Combat loading gives primary consideration to the facility with which troops, equipment, and supplies can be unloaded ready for combat, rather than to economical utilization of ship space. Each individual item of equipment and supply must be stowed aboard the ship so that it can be unloaded at the time and in the sequence which will most effectively support the planned scheme of maneuver ashore. Insofar as possible, each ship must be loaded to provide maximum flexibility to meet possible changes in the tactical plan, and to facilitate discharge of cargo to meet emergency calls for equipment or supplies. See FMFM 4-2, Amphibious Embarkation, for detailed information.

515. REHEARSAL

a. The rehearsal phase is that period during which prospective operations are rehearsed for the purpose of:

(1) Testing adequacy of plans, the timing of detailed operations, and the combat readiness of participating forces.

(2) Ensuring that all echelons are familiar with plans.

(3) Testing communications.

b. Rehearsals may precede the movement to the objective area or may be conducted while en route. A separate rehearsal order is issued to cover salient points of the operation order to meet local conditions in order to realistically test the actual operation.

516. MOVEMENT

a. The movement phase is that period during which various components of the amphibious task force move from points of embarkation to the objective area. Movement of the amphibious task force to the objective area includes departure of ships from loading points, sea movement, and the approach to and arrival in assigned positions in the objective area. The sea movement may be interrupted by rehearsals and stops in staging areas.

b. Although the movement to the objective area is essentially a naval operation, the division will be involved in the following:

(1) Command relationships afloat.

(2) Detailed briefings of troops.

(3) Training.

(4) Communications.

(5) Messing and billeting.

(6) Security and shipboard drills.

(7) Recreation and morale.

(8) Health and physical conditioning.

517. SHIP-TO-SHORE MOVEMENT

a. General.--The ship-to-shore movement is that part of the assault phase which pertains to the timely deployment of troops and their equipment from assault shipping to designated positions ashore. The movement may be executed by helicopters, by waterborne means (landing ships, landing craft, and assault amphibious vehicles), or by both. See NWP 22-3, Ship-to-Shore Movement; FMFM 3-3, Helicopterborne Operations; and FMFM 9-2, Amphibious Vehicles.) The ship-to-shore movement is the most critical part of the assault phase. It commences on order of the commander amphibious task force after his consultation with the commander landing force. Its purpose is to land troops, equipment, and supplies at the prescribed times and places in the formation required by the scheme of maneuver ashore.

(1) Landings are made by assault units which seize objectives ashore which, when secured, will ensure the continuous landing of troops and material, and the maneuver space required for expansion of the beachhead and accomplishment of the amphibious task force mission.

(2) Division reserves, combat support, and combat service support units are landed as required to maintain the momentum of the attack.

(3) A continuation of the attack is conducted after the force beachhead is captured and depends upon the completion of a satisfactory buildup of division units and material ashore.

(4) The logistic support system is developed from no support and progresses until the desired level of support is attained.

b. Ship-To-Shore Movement Categories.--In the ship-to-shore movements, five categories of movement are employed. Three of these categories --scheduled waves, on-call waves, and nonscheduled units--are concerned with troops and their initial combat supplies. The remaining two movement categories--floating dumps and landing force supplies--are concerned with the landing of supplies but do not apply in helicopter ship-to-shore movement. Each of these categories is discussed below as they apply to the helicopterborne movement and the waterborne movement.

(1) Helicopterborne Movement.--The helicopterborne ship-to-shore movement normally is completed during the initial unloading period when tactical considerations are the dominant factor. It is usually necessary for helicopters to make several trips between ships and landing zones to land and supply the helicopterborne forces. Once the helicopterborne movement is completed, transport helicopters are employed to meet tactical and logistical requirements of landing force operations ashore as directed by the

commander landing force. Landing categories of the helicopter ship-to-shore movement include:

(a) Scheduled Waves.--Scheduled waves consist of those assault elements of the landing force, together with their initial combat supplies, to be landed by helicopter for which times, places, and formations for landing have been determined. Landing of this category proceeds in accordance with the helicopter employment and assault landing table of the landing plan without change except in emergency. Scheduled landing usually begins at H-hour or other specified time, and continues until all elements in this category are landed.

(b) On-Call Waves.--On-call waves consist of those helicopterborne units with their initial combat supplies, or critical supplies, whose need ashore at an early hour is anticipated, but whose time and place of landing cannot be accurately predicted. This category normally consists of those supporting elements, equipment, or especially selected supplies, the need for which is anticipated for possible augmentation, replacement, or exploitation as the situation requires. Because of the urgency that may be attendant upon landing, elements or items in other landing categories may be interrupted to permit on-call landing. The number of on-call units or items must be kept to a minimum if their high-priority status is to be preserved. On-call elements to be landed by helicopter are held in readiness aboard ship. They are landed on call of the appropriate troop unit commander.

(c) Nonscheduled Units.--The nonscheduled landing category consists of any remaining units of the landing force and their initial combat supplies, and any replenishment equipment or supplies which are to be helicopter lifted and which are not included in either the scheduled or on-call categories. The landing of this category commences upon completion of scheduled landings in accordance with landing force requirements. Once started, it may be interrupted to permit on-call landings or landing of other selected units or supplies, or may be temporarily suspended because of unforeseen conditions, such as a requirement of the landing force to employ landing force helicopters for other tactical or logistical purposes. Modifications should be kept to a minimum since alterations will complicate the helicopter ship-to-shore movement.

(2) Waterborne Movement.--The categories for the ship-to-shore movement include:

(a) Scheduled Waves.--Scheduled waves consist of tank landing ships, landing craft, or assault amphibious vehicles which are loaded with those assault elements of the landing force (together with their initial combat supplies) for which the times, places, and formations for landing have been determined and specified. After they have crossed the line of departure or left the rendezvous point, the landing of scheduled waves proceeds without change except in emergency. Their landing usually begins at H-hour and continues for a relatively short period of time. These waves land in accordance with the assault schedule.

(b) On-Call Waves.--On-call waves are elements of the landing force (with their initial combat supplies) whose need ashore at an early hour is anticipated, but whose time and place of landing cannot be predicted accurately and is not specified. These elements are essentially those which are subject to an immediate emergency call, such as reserve units of assault infantry regiments, tanks, and shore party teams. Other elements making up on-call waves include combat support, reconnaissance parties, and direct support artillery units. According to the nature of the RLT mission, those elements of an assault BLT not included in the scheduled waves are usually in this category. In waterborne landings, on-call waves are normally boated at or near H-hour and held in instant readiness to respond to an order to land. However, nonavailability of adequate numbers of landing craft may require that some on-call elements utilize a second trip of landing craft. When the enemy situation and hydrographic conditions permit, landing ships as well as boats and assault amphibious vehicles are employed to land on-call waves. Because of the urgency that may be attendant upon the landing of on-call waves, the landing of any other element may be disrupted to permit the landing of on-call waves. Scheduled waves, however, are disrupted only in an emergency. To preserve the high-priority status of such units, their number is kept to the minimum consistent with the requirements of the landing force. Waterborne on-call waves are listed in the assault schedule following the scheduled waves.

(c) Nonscheduled Units.--Nonscheduled units are those landing force elements and supplies held in readiness for landing during the initial unloading period, but not included in either the scheduled or on-call category. Nonscheduled units include such elements as general support artillery, antiaircraft units, the division reserve, and headquarters units of division and landing force. The probable sequence of landing of nonscheduled units is determined during planning. The landing of these units is directed when the need ashore can be predicted with a reasonable degree of accuracy. In the landing of nonscheduled units, the maximum coordination between landing force and naval echelons is essential to ensure efficient use of landing ships and craft.

(d) Floating Dumps.--Floating dumps consist of emergency supplies preloaded in landing craft, landing ships, or assault amphibious vehicles and are available on an on-call basis. Floating dumps are established to provide critical items of supply for which an early need is anticipated. Floating dumps are located in proximity to the appropriate control officer who directs their landing as requested by the troop commander concerned.

(e) Landing Force Supplies.--Landing force supplies consist of those supplies remaining in assault shipping after initial combat supplies and floating dumps have been unloaded. This category is landed selectively in accordance with the requirements of the landing force until the situation ashore permits the beginning of general unloading.

518. ASSAULT

The assault phase is that period between the arrival of the major assault forces of the amphibious task force in the objective area and the accomplishment of the amphibious task force mission. It encompasses:

a. Preparation by naval gunfire and air bombardment.

b. Ship-to-shore movement of the landing force by helicopters, landing craft, assault amphibious vehicles, and landing ships.

c. Landings in landing and drop zones and on beaches by the assault elements of the landing force.

d. Operations inland to seize the beachhead.

e. Provision of logistics, air, and naval gunfire support of the attack by naval forces throughout the assault.

f. Landing of remaining landing force elements, and the conduct of such operations as may be required to complete the accomplishment of the amphibious task force mission.

519. TACTICAL-LOGISTICAL GROUP

a. A TACLOG group is a temporary agency composed of landing force liaison personnel, which is established as required by the commanders of major landing force echelons down to the BLT. A TACLOG group functions as the commander's staff liaison representatives for the principal purpose of advising corresponding Navy control officers of landing force requirements while the ship-to-shore movement is being executed. Since the Navy control organization controls the ship-to-shore movement, a TACLOG group has no directive authority, but serves as the principal channel through which the commander of the landing force echelon it represents influences the sequence of landing of units, equipment, and supplies.

b. The TACLOG group of each echelon of the landing force is stationed on the corresponding control ship with the Navy control officer exercising control over the ship-to-shore movement of that echelon. Figure 8 shows the relationship of the landing force organization, the TACLOG group organization, and the Navy control organization for an amphibious operation.

c. A TACLOG group performs the following functions during the ship-to-shore movement:

(1) Keeps a detailed record of the progress of the landing, including a record of the current location of each serial not yet landed and of dispatch time and arrival time at the beach of each serial.

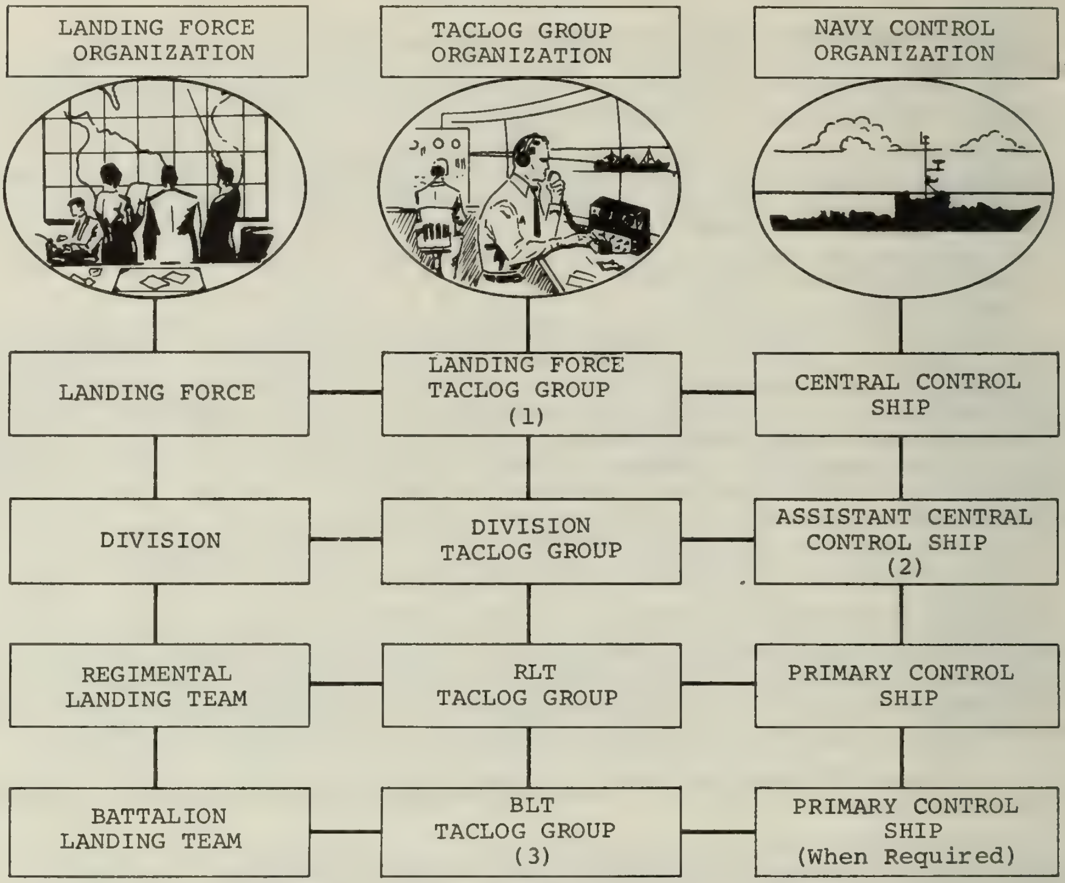
(2) Informs appropriate commanders of the landing force of the progress of the ship-to-shore movement, and of any factors which may cause delay or require deviation from the landing plan.

(3) Monitors the progress of tactical operations ashore, in order to be aware of situations which may require deviation from the landing plan and to be prepared to assist in making adjustments to the landing plan as required.

(4) If adjustments are required in the sequence of landing, advises the Navy control officer of landing force requirements, and assists him in locating the troop units, equipment, and supplies concerned.

(5) In coordination with the Navy control agency, expedites the landing of troop units, equipment, and supplies in accordance with plans and orders.

(6) Maintains close liaison with the shore party commander, and assists the Navy control agency in location and dispatch to the beach of selected supplies to facilitate the buildup ashore of balanced initial stocks.


LANDING FORCE ORGANIZATION
TACLOG GROUP ORGANIZATION
NAVY CONTROL ORGANIZATION
LANDING FORCE
LANDING FORCE TACLOG GROUP (1)
CENTRAL CONTROL SHIP
DIVISION
DIVISION TACLOG GROUP
ASSISTANT CENTRAL CONTROL SHIP (2)
REGIMENTAL LANDING TEAM
RLT TACLOG GROUP
PRIMARY CONTROL SHIP
BATTALION LANDING TEAM
BLT TACLOG GROUP (3)
PRIMARY CONTROL SHIP (When Required)

NOTES:

1. Formal TACLOG organizations are not generally formed above division. The functions carried out by such groups are performed by the higher staffs.

2. When attack groups and landing groups are formed, or when the landing force consists of a single division, a central control officer and a central control ship are assigned at this level, and no assistant central control officer or ship is assigned.

3. BLT TACLOG groups are not normally established except in those situations where the BLT is to be landed over a separate beach beyond control of the RLT.

Figure 8.--TACLOG Group Assignments.

d. To accomplish these functions, the officers detailed to the TACLOG group must have intimate knowledge of the tactical plan, the embarkation plan, and the landing plan of their parent unit. TACLOG groups are normally composed of representatives from the operations and logistics sections and the embarkation officer of the landing force headquarters which they represent. Representatives from artillery, tank, air, and other units may be assigned, particularly during the period when those units are being boated and landed.

e. During the initial unloading phase, the functions of the TACLOG group are primarily tactical in nature, concerning such matters as coordinating the landing of on-call and nonscheduled serials (such as reserve elements) and high priority supplies to meet critical requirements ashore. As the landing progresses, the TACLOG functions become more logistics in nature, to facilitate the buildup of balanced initial levels of supplies ashore. TACLOG groups of BLT's and RLT's are normally disestablished as the units they represent complete their landing; the division TACLOG group is normally disestablished upon the commencement of general unloading.

f. The TACLOG group established by a helicopterborne troop unit is normally located in the vicinity of the helicopter direction center (HDC) and acts as the principal advisor to the Navy officer controlling the ship-to-shore helicopterborne movement. TACLOG groups are rarely formed at the BLT level for helicopterborne landings unless the BLT is the only helicopterborne unit or is on a semi-independent mission.

g. TACLOG groups require communication means which will permit monitoring of tactical operations ashore and maintenance of close liaison with the commander of the landing force echelon they represent and with the shore party. The division TACLOG group normally enters the division tactical net, the division command net 1, the shore party command net, and the shore party control net. For helicopterborne operations, the TACLOG group also enters the helicopter support team logistics net.

520. DEFENSIVE CONSIDERATIONS IN THE AMPHIBIOUS OPERATION

a. General.--Defensive combat is, in itself, the antithesis of the amphibious operation. A virtually uninterrupted offensive, characterized by maneuver, firepower, and shock action, is maintained by the landing force throughout the amphibious operation. An offensive state of mind and an aggressive spirit are maintained at all times and at all levels of the landing force. In order to retain the initiative, constant pressure is exerted against the enemy.

b. Defense Against Mechanized Counterattack

(1) One of the most dangerous enemy reactions to the amphibious assault is a mechanized counterattack against the beachhead. The threat is particularly significant because of the initial lack of adequate tanks and heavy antitank weapons ashore in the initial assault phase.

(2) Antimechanized planning provides for the allocation and coordinated employment of all antimechanized means, both active and passive, extending through all organizations of the landing force, which can be employed effectively against hostile mechanized forces. See FMFM 9-1, Tank Employment/Antimechanized Operations, for detailed information.

c. Defense Against Air Attack

(1) The Marine aircraft wing is responsible for and possesses the weapons for the conduct of antiair warfare.

(2) Security against aircraft is obtained by early warning, cover, concealment, dispersion, and fire. The warning system is organized as quickly as possible after landing in accordance with established SOP's of the division. See FMFM 5-1, Marine Aviation, and FMFM 5-5, Antiair Warfare, for detailed information.

d. Defense Against Airborne and Helicopterborne Attack

(1) Airborne and/or helicopterborne operations against the landing force may range from a large-scale effort, usually launched in conjunction with other forces, to small-scale raids initiated for the purpose of destroying critical installations, disrupting communications, or gaining information. The scale of the attack will depend on the size force available to the enemy, availability of delivery aircraft, purpose of the effort, and the degree of air superiority which the enemy is able to achieve prior to and during the attack.

(2) Major airborne or helicopterborne operations will seldom, if ever, be undertaken by the enemy unless he possesses local air superiority or, as a minimum, air parity. Although friendly air superiority may serve as a deterrent to major attacks, small-scale attacks or sneak raids may be attempted without air superiority and consequently can be a continuing threat to the landing force.

(3) Defense against airborne or helicopterborne attack is directed towards destroying the enemy with minimum delay and thus preserving the offensive momentum of the landing force.

e. Defense Against Guerrillas and Infiltration.--When the primary mission of the landing force is to conduct operations against regular enemy forces and a significant guerrilla threat exists in the landing area, the landing force will conduct operations against guerrillas as a lesser included mission. Aimed at preventing guerrilla interference with the landing force's primary mission, such operations may include both offensive operations and defensive measures.

f. Defense Against Nuclear, Biological, and Chemical (NBC) Attacks.--The defense against NBC attacks requires special consideration and training. However, many of the passive measures utilized in conventional warfare contribute to the defense against NBC warfare. The proper training of personnel, provisions for decontamination, evacuation, and individual protective equipment and clothing are primary NBC defense requirements. Additional precautions in selection of weapons positions, defensive positions, construction of protective shelters, and special warning systems may be necessary (see the FMFM 11 series on nuclear and chemical operations in the Fleet Marine Force).

521. AMPHIBIOUS RAIDS, DEMONSTRATIONS, AND WITHDRAWALS

a. General.--Raids, demonstrations, and withdrawals are lesser included types of amphibious operations in which the entire Marine division or units thereof may participate. The doctrine and techniques applicable to an amphibious operation also apply to raids, demonstrations, and withdrawals. They do differ from amphibious assaults in purpose and normally do not involve establishing a landing force on a hostile shore. See FMFM 2-2, Amphibious Reconnaissance, and FMFM 8-1, Special Operations, for detailed information concerning amphibious raids, demonstrations, and withdrawals.

b. Amphibious Raids

(1) An amphibious raid is a landing from the sea on a hostile shore involving swift incursion into or temporary occupancy of an objective followed by a planned withdrawal. Raids may be independent operations or be designed to support other operations such as another landing, a land campaign, or air or naval operations. They are conducted for the purpose of inflicting loss or damage, tactical deception, reconnaissance, capturing or evacuating personnel or material, and establishing, supporting, or coordinating unconventional warfare activities.

(2) The execution of an amphibious raid is accomplished in the following phases:

(a) Ship-to-shore movement.

(b) Operations ashore.

1 Movement from the landing beach or landing zone to the objective.

2 Attack of the objective.

3 Withdrawal to reembarkation sites. These sites may not be the same as in landing.

(c) Reembarkation.

(3) In executing a raid, these phases follow in sequence, but in planning, the attack of the objective is considered first. The plan of attack is similar to the amphibious assault; i.e., scheme of maneuver, landing plan, and plan of supporting fires, except that the scheme of maneuver must provide for withdrawal and reembarkation.

c. Amphibious Demonstration.--An amphibious demonstration is an operation conducted for the purpose of deceiving the enemy by a show of force with the expectation of deluding the enemy into a course of action unfavorable to him. The demonstration feints a landing involving an approach to a beach or landing zone. Since an actual landing is not made, the operation is largely naval in character. There is limited participation by the Marine division in the execution of a demonstration normally when there is a waterborne or helicopterborne ship-to-shore movement or a combination of the two.

d. Amphibious Withdrawal

(1) An amphibious withdrawal is a withdrawal of forces by sea in naval ships or craft from a hostile shore. The purpose of the amphibious withdrawal is to redeploy forces. The organization of forces, the responsibilities for accomplishment of tasks, and the command relationships during an amphibious withdrawal are essentially the same as those in the objective area during the assault phase of an amphibious operation.

(2) The reembarkation area and beaches are selected by the commander amphibious task force in consultation with the commander landing force. To achieve maximum speed in embarkation and to provide passive protection against mass destruction weapons, multiple embarkation beaches in the embarkation area are desirable. Other factors to be considered in

selecting the location and number of embarkation beaches include hydrography, distance from transport area, availability of suitable assembly areas, proximity to the landing force as a whole, the covering force in particular, and protection from enemy observation and fires.

(3) When all factors are more or less equal, terrain may be a deciding factor in final selection. Good observation and fields of fire are necessary so that the enemy can be engaged at long ranges. Natural and manmade obstacles, including barrier systems, minefields, and demolitions, are used in combination with the terrain to minimize enemy interference with the withdrawal. Cover and concealment are sought for assembly areas and movement routes to embarkation beaches.

(4) The mission of the covering force is to prevent enemy interference with the withdrawal of the main body; its size should be held to the minimum consistent with providing adequate protection. The strength and composition of the covering force may vary in different portions of the embarkation area. A unit occupying a sector protected by a formidable obstacle may leave only minimum security posts, while units under attack may be required to remain at full strength.

(5) Supporting troops are attached to the covering force consistent with requirements. Support requirements may conflict with the requirement for the early embarkation of heavy support equipment and a careful evaluation of these conflicting requirements is necessary. Reconnaissance troops and engineer and medical personnel are included as part of the covering force only if absolutely necessary.

(6) The requirement for supporting fires increases as the force withdraws and its capability to repel the enemy diminishes. Emphasis is placed upon maximum use of external fire support agencies, including air support and naval gunfire support. Nuclear fires may be used to forestall enemy interference.

(7) Air support requirements may include the use of transport helicopters to accomplish part of the withdrawal, naval gunfire spotting, close air support, protection from enemy air, reconnaissance, and interdiction. Forward air controllers with the covering force control airstrikes in support of the withdrawal. In the final stages, this function is assumed by the tactical air coordinator (airborne). Helicopters may be used in the withdrawal of the covering force.

(8) The effect of the withdrawal on logistics support must be anticipated to ensure adequate support for the operation, prevent the unnecessary destruction or loss of supplies, provide for the destruction of supplies and equipment not evacuated, and provide prompt evacuation of casualties.

(9) Movement to embarkation beaches is controlled through the use of assembly areas, routes of withdrawal, initial points, and checkpoints. The plan for embarkation must emphasize speed and provide for maximum coordination between the arrival of units at embarkation beaches and the arrival, loading, and departure of landing craft. The amount of detail included in the plan is determined by the size of the operation, experience of personnel, and the time available. The following may be included:

(a) Announcement of whether the embarkation is to be in accordance with normal procedure for combat loading or for administrative loading.

(b) Designation of embarkation beaches.

(c) Reactivation of the shore party as an embarkation combat agency and the assignment of precise responsibilities, including an officer in charge of embarkation.

(d) Detailed instructions concerning embarkation.

(e) Schedule and priorities for embarkation.

(f) Schedule for movement of units to embarkation beaches.

(10) Embarkation is performed by the shore party, including ships' platoons, and embarkation personnel. Control agencies, provided for each embarkation beach, summon and guide units from the assembly areas to the embarkation beaches and expedite loading.

522. CIVIL AFFAIRS IN AMPHIBIOUS OPERATIONS

a. General.--Civil affairs activities are the means the commander utilizes to affect relationships between his forces and the civil authorities and people in his area of operations. Civil affairs activities in an amphibious operation vary little from civil affairs activities in a land operation.

b. Objectives.--Civil affairs objectives are determined based on the following primary concerns:

(1) The commander must establish that degree of control over the populace in the area of operations necessary to ensure the security of his force and the accomplishment of his mission.

(2) The commander must fulfill certain responsibilities toward the civil populace in the area of operations as prescribed by international law and U.S. treaty commitments.

c. Planning

(1) Civil affairs operations are planned in accordance with LFM 02, Doctrine for Landing Forces; FMFM 8-6, Joint Manual for Civil Affairs; and FMFM 3-1, Command and Staff Action.

(2) To achieve his civil affairs objectives, the commander will find it necessary to plan for the conduct of any or all of the following activities:

(a) Provide for civilian support of and prevent civilian interference in military operations.

(b) Support of, or exercise of, governmental functions.

(c) Community relations (in the operational situation).

(d) Civil action.

(e) Population and resources control.

(f) Support of civil defense.

(g) Consolidation of psychological operations.

523. PSYCHOLOGICAL OPERATIONS SUPPORT OF THE AMPHIBIOUS OPERATION

a. General.--Psychological operations (PSYOP) are those planned operations the division commander takes to influence the opinion, emotions, attitude, and/or behavior of an enemy, neutral, or friendly foreign group in such a way as to further the accomplishment of his mission. The Marine division and its supporting elements are capable of effecting actions to achieve PSYOP objectives. PSYOP activities in support of an amphibious operation vary little from PSYOP activities in a land operation.

b. Objectives.--PSYOP objectives are determined by the commander amphibious task force in conjunction with the commander landing force. Objectives are based upon the following primary concerns:

(1) Contribution to the accomplishment of the commander's assigned missions.

(2) In accordance with the national policy, support the achievement of the national objectives of the United States among friendly, neutral, or hostile foreign groups.

c. Planning.--Psychological operations are planned in accordance with LFM 02, Doctrine for Landing Forces; FMFM 3-1, Command and Staff Action; and FM 33-5, Psychological Operations--Techniques and Procedures.

SECTION 6

OFFENSIVE OPERATIONS

601. GENERAL

An amphibious assault is conducted to establish the landing force on a hostile shore. Following the landing, the Marine division employs the offensive to close with and destroy or capture the enemy, to impose the commander's will on the enemy, and to seize and control the objectives that will ensure the accomplishment of the assigned mission.

602. CHARACTERISTICS

a. Amphibious assault involves landings by surface and/or helicopter-borne forces to seize objectives inland of landing beaches. (See fig. 9.) Subsequent operations in the objective area are conducted to destroy enemy forces and to seize tactical objectives which permit control of the area and lead to the accomplishment of the landing force mission.

b. Offensive action emphasizes maximum application of combat power coupled with bold maneuver, shock effect in the assault, and prompt exploitation of success. Every possible means is used to increase mobility in order to capitalize on the shock effect gained by the attack.

c. The use of nuclear and chemical weapons, or the threat of their use, does not alter tactical principles, but they do have far-reaching effect on the application of those principles. Nuclear and chemical weapons provide the commander with a decisive means of influencing the outcome of a battle. The interdependence of the scheme of maneuver and the nuclear and chemical fire plan demand close coordination in planning.

d. Except for the great increase in firepower and its related effects, the characteristics of the attack with nuclear weapons are similar

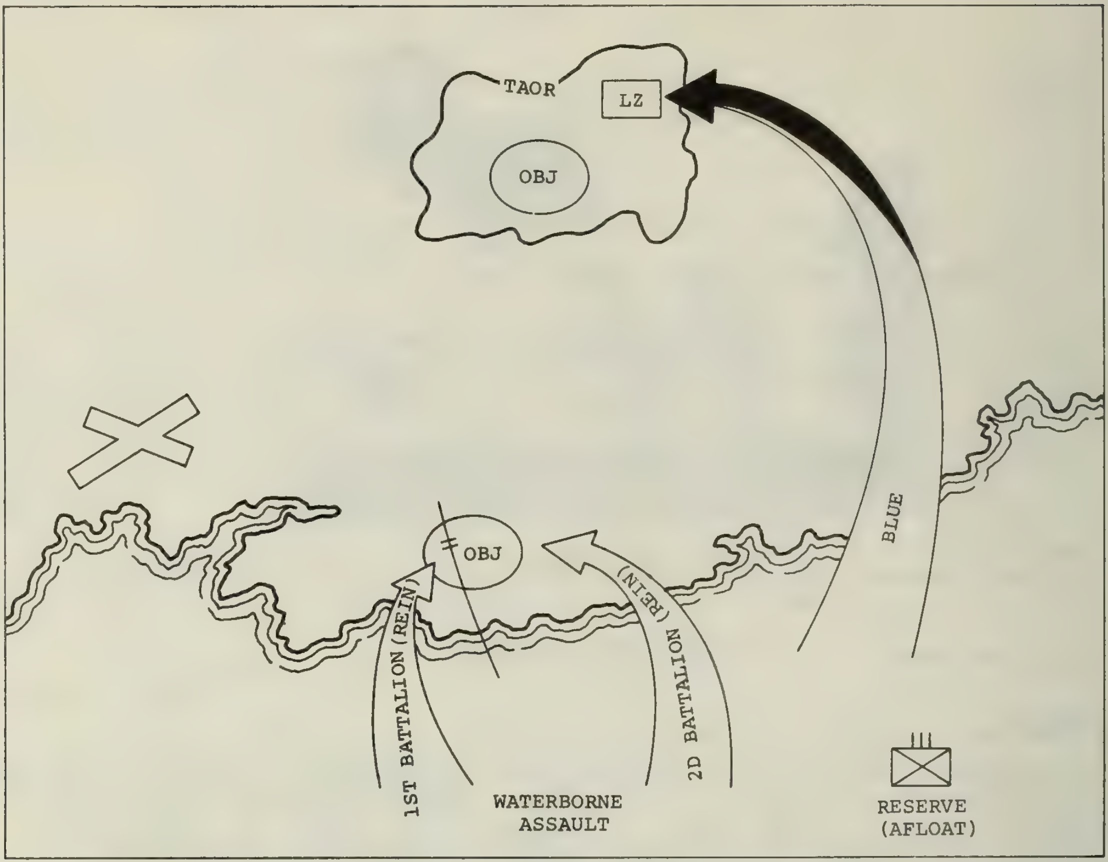


Figure 9.--Amphibious Assault.

to those of offensive combat when nuclear weapons are not employed. The principal variations brought about by this increase in firepower are an acceleration in the progress of the attack, an increased requirement for protecting intervening areas between widely separated maneuver units, and an intensified demand for accurate and timely intelligence. The threat of attack by enemy nuclear weapons is always present. This threat is evaluated at every level of command. Troop dispositions must reflect the results of this evaluation. If the threat is estimated to be slight, concentration of forces may be desirable to take advantage of the principle of mass. As the estimated threat increases, greater unit separation is required, still allowing for the concentration necessary to effect a decision to be achieved in the shortest possible time.

e. Passive defense measures give the attacker added security from enemy counterattack. These measures include separation of units to the degree warranted by the enemy nuclear threat, cover and concealment, rapid movement, and deception. Upon seizure of objectives, forces disperse, exploit rapidly, and prepare for further offensive action while minimum forces remain to consolidate the objective. See the FMFM 11 series on nuclear and chemical operations in the Fleet Marine Force for detailed information on nuclear offensive operations.

603. FUNDAMENTALS OF OFFENSIVE ACTION

a. In the offense, combat power is derived from a combination of troop strength, mobility, firepower, and tactical skill. The forming of task groups which are flexible, mobile, and responsive to the commander's will are essential in attaining combat power.

b. The attack is planned carefully and executed aggressively.

c. Once the attack is launched, the division attempts to gain its objective in the shortest possible time. To ensure rapid execution, the commander exploits all means of combat power.

d. Every effort is made to disrupt and neutralize enemy support and reinforcement actions.

e. Offensive action requires the concentration of superior combat power at the decisive point and time. Enhancing our mobility and degrading that of the enemy is essential to the attainment of decisive combat power.

f. Fire superiority must be gained early and maintained throughout the attack to permit freedom of maneuver without prohibitive loss. The effects of fire must normally be exploited by maneuver.

g. The attacker maneuvers to exploit the effects of his fire and to close with and destroy the enemy by assault. Maneuver may also force the enemy to fight on unfavorable terrain.

h. Plans must provide for the exploitation of any advantage occurring during the attack. This requires a reserve of troops and firepower which provides the commander means to exploit successes. When the opportunity for decisive action presents itself, the commander commits his total resources and demands the ultimate from his troops. Pressure applied day and night against a weakening enemy denies him respite from battle, the opportunity to recoup losses, or gain the initiative. Failure to capitalize on opportunities will result in slow, inconclusive attacks in which the attacker usually will suffer heavy losses.

i. Terrain is important in offensive combat and often provides advantages which can be exploited. Plans often are directed toward the early domination of key terrain features which give an advantage of observation, cover and concealment, and fields of fire. This enhances maneuver and support, provides control without placing forces in static postures, and affords additional security.

j. In the attack, the three principal tasks are holding the enemy in position, maneuvering against him to gain an advantage, and at the decisive time, delivering an overwhelming attack to destroy him.

k. Surprise is always sought. It may be gained by choosing an unexpected time, place, direction, type, or strength of attack. It is enhanced by deception.

l. An aggressive attack inherently provides some security.

m. The commander ensures that the attacks of his subordinate units are coordinated and contribute to the accomplishment of the command's mission by assigning missions, allocating means, and applying other necessary controls.

n. Dispersion is employed to reduce vulnerability but only to the extent that units will remain responsive to the will of the commander.

o. The plan must provide for the combat service support required to sustain the attack.

p. Electronic warfare is an integral part of operations planning.

604. WEATHER AND TERRAIN

a. Weather.--Weather conditions have a significant effect on the movement of vehicles, the delivery of observed fire, and the conduct of helicopterborne and air support operations. Adverse weather reduces both ground and air mobility, but offers increased concealment for our forces. In any case, the cardinal role of aircraft and the employment of nuclear and chemical weapons place increased emphasis on the requirement for accurate and detailed weather predictions.

b. Terrain.--The seizure of terrain is a key element in controlling the outcome of battle. When nuclear and chemical weapons are employed, terrain, vegetation, cultural features, and soil composition will influence both the nuclear and chemical effects and the maneuver of friendly forces.

605. ALLOCATION OF COMBAT POWER

a. General.--In accomplishing the principal tasks in offensive operations, the division commander makes a distribution of forces to concentrate superior combat power at the decisive times and places. This is accomplished through allocation of forces to the main and supporting attacks and to the reserve. An important factor considered in determining distribution of forces is the availability of nuclear weapons. Proper allocation of combat power can be achieved by weighing the following requirements:

(1) Provision of decisive superiority over the enemy in the area of the main attack.

(2) Maintenance of the momentum of the attack to the objective.

(3) Denial of dominating or key terrain to the enemy.

(4) Provision of adequate combat power for the accomplishment of the mission assigned the supporting attack(s).

(5) Fixing the enemy and deceiving him as to the location of the main attack.

(6) Provision of sufficient forces for the reserve in order that it may influence the attack or meet unexpected enemy strength.

(7) Provision of adequate security and reconnaissance means.

(8) The maneuverability required by the various tactical groupings.

b. Distribution of Forces

(1) Main Attack.--The main attack receives first priority in the allocation of combat power in order that the primary task may be accomplished.

(2) Supporting Attack.--The supporting attacks are assigned tasks which assist the main attack and use the minimum forces. Sufficient combat power is allocated for these tasks. Moreover, nuclear or chemical weapons may be used to accomplish tasks which might otherwise require large forces.

(3) Reserve.--The reserve may consist of firepower, troops, or both. The inclusion of nuclear and chemical weapons and other fire support means in the reserve adds both power and flexibility, thereby reducing the number of troops required for the reserve force.

606. FORMS OF OFFENSIVE MANEUVER

a. General.--Offensive maneuver is the movement made to place combat power in an advantageous position with respect to the enemy, to close with him, and to destroy him. Although maneuver is made with respect to the enemy, the ability to maneuver is closely related to battlefield initiative. The initiative lies with the attack so long as he retains freedom of action to select the time and place of the engagement. In the final analysis, the tactical advantage being sought through maneuver is the disposition of the friendly force in such a manner as to facilitate the destruction of the enemy.

(1) The commander may orient his attack on the front, flank, or rear of the enemy. Helicopterborne operations that place forces on the enemy's flanks or in his rear can be used during all forms of maneuver.

(2) The basic forms of maneuver are the envelopment, the penetration, and the frontal attack. The double envelopment, turning movement, and encirclement are variations of the envelopment.

(3) The distinction in the form of maneuver employed exists primarily in the intent of the commander, since subordinate units may use other forms of maneuver.

(4) The mission assigned, including the tasks derived from it, and the requirement for secrecy may impose limitations in time and direction of attack, thus indicating a form of maneuver to be adopted.

(5) The mission of the division, characteristics of the area of operations, disposition of opposing forces, and relative combat power of opposing forces are analyzed to determine the best form of maneuver. Normally, terrain, time available, friendly dispositions, ability to support the attack, and the enemy situation are the principle factors in determining the form of maneuver.

b. Frontal Attack.--The frontal attack is a form of maneuver in which the attack strikes the enemy all along his front by the most direct route. The frontal attack is used to overrun and destroy or capture a weaker enemy in position or to fix an enemy force in position in support of a main attack conducted elsewhere. Subordinate units of a force conducting a frontal attack are not restricted to be on line or conducting

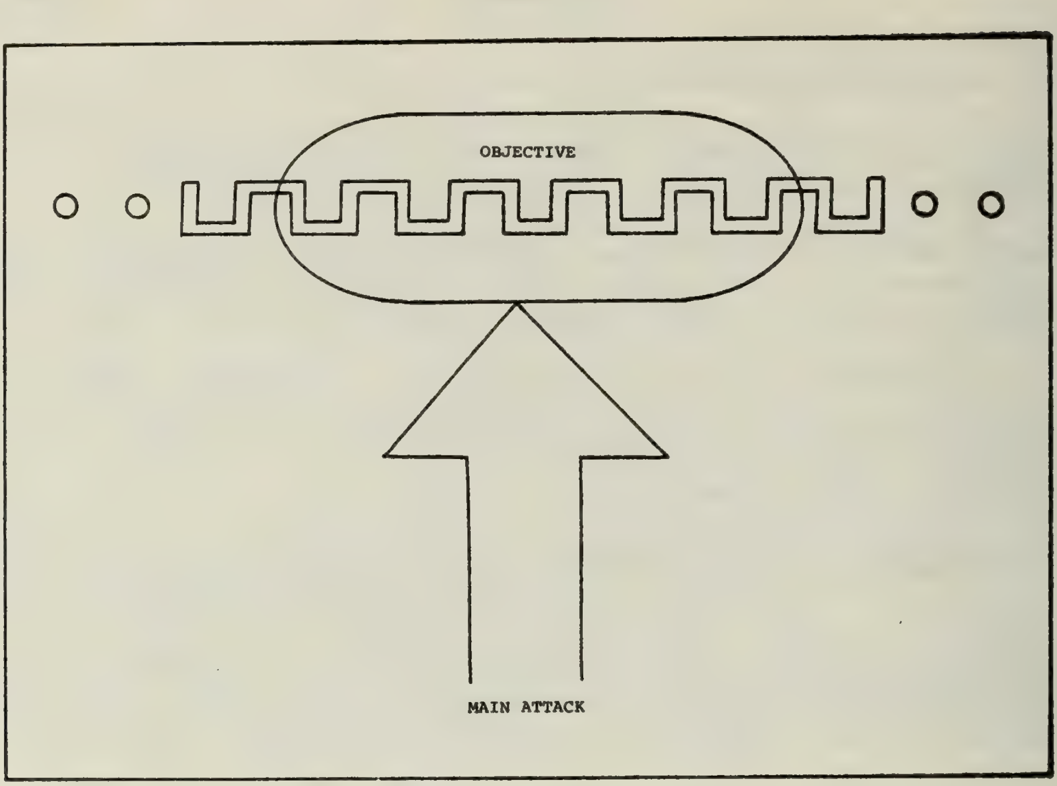


Figure 10.--Frontal Attack.

frontal attacks themselves. During a frontal attack, the commander seeks to create or take advantage of conditions that will permit a more decisive penetration or envelopment of the enemy defensive positions. (See fig. 10.)

c. Penetration.--In the penetration, a powerful main attack passes through the enemy defensive positions on a narrow front while one or more simultaneous supporting attacks exert pressure on a broad front to deceive the enemy and hold him in place. The purpose of the penetration is to divide the enemy force and defeat it in detail.

(1) The penetration usually progresses in three stages: rupturing the forward enemy defensive positions, widening the gap to permit the employment of follow-on forces, and overrunning or seizing objectives to destroy the continuity of the enemy defense. (See fig. 11.)

(2) The main attack is characterized by a preponderance of combat power organized in depth. A leading force and one or more follow-on forces will give depth to the main attack. The leading force ruptures the enemy defensive positions on a narrow front in a powerful and violent attack. It then widens the gap to permit the employment of follow-on forces, or it maintains the momentum of the main attack by driving on to overrun or seize assigned objectives.

(3) Follow-on forces in the main attack may be used to widen the gap after the leading force has ruptured the enemy defensive positions,

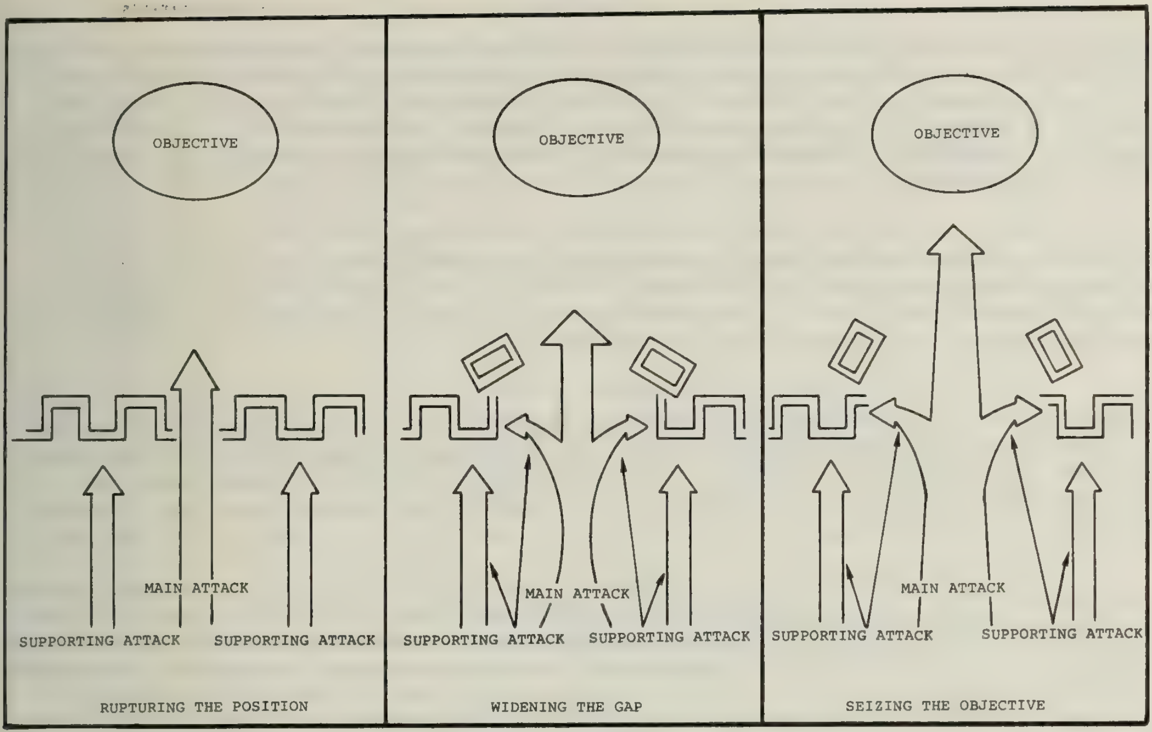


Figure 11.--Penetration.

or they may pass through the leading force and maintain the momentum of the attack by overruning or seizing assigned objectives in the enemy rear. Follow-on forces may also be employed to attack enemy forces isolated by the momentum of leading forces.

(4) One or more supporting attacks are launched simultaneously with the main attack. These attacks are launched on a wide front to deceive the enemy as to the location of the main attack and to hold him in place. By holding the enemy in place, he is prevented from disengaging to withdraw, to escape, or to react to the main attack.

(5) The reserve may be used to widen the gap if necessary, but it would most likely be used to reinforce success such as the exploitation.

(6) The three stages of the penetration may be immediately followed by the exploitation. The penetration and the exploitation would then overlap and blend into a continuous operation. The leading force from the main attack may be committed to the exploitation, leaving bypassed objectives to be seized by follow-on forces. Follow-on forces or the reserve may pass through the leading force to move into the exploitation.

(7) Strong fire support is an important element in the preponderance of combat power used in the main attack. It contributes to the power and violence of the main attack and is effective in reducing casualties. Preparation fires cover the movement of the main and supporting

attacks and then concentrate to demoralize and weaken the enemy at the point where the main attack ruptures the enemy defensive positions. When the rupture is effected, fire support shifts to support the attacks to widen the gap and the attacks on assigned objectives. Fire support is also used to limit the enemy's ability to react, neutralize his reserve, and engage targets of opportunity.

(8) Objectives are selected in the enemy rear to break up the continuity of his forces and to make his forward defensive positions untenable. Objectives are selected at least to the depth of the enemy reserve and include his fire support means, command and control installations, and reserve, as well as key terrain.

(9) To facilitate the momentum of the main attack, lateral movement should not be unduly restricted by boundaries or obstacles. Intermediate objectives are normally assigned to the main attack only if they are essential to the accomplishment of the mission. Close liaison must be maintained with forces in contact to facilitate one force passing through another.

(10) Consideration is given to the penetration as a form of maneuver when the enemy is overextended or weak and when his flanks are unassailable. The terrain may be unfavorable to other forms of maneuver or the terrain may favor a penetration because of an abundance of avenues of approach. The availability of superior fire support may favor a penetration, or a penetration may be used when time does not permit another form of maneuver. The penetration is considered when overwhelming combat power is not available.

(11) Evaluating the terrain is important to a successful penetration. An avenue of approach should be selected to facilitate the rupture of the enemy defensive position, the widening of the gap, and the seizure of objectives in the enemy rear. The avenue of approach should not result in a gap so narrow that the enemy could easily close it nor should it be so wide that it would require too large a force to open it initially. The terrain should also lend itself to the mobility and control of the attacking force.

(12) Multiple penetrations may be launched simultaneously at division and regimental levels if sufficient combat power is available. In such cases, the penetration may converge upon a single deep objective, or they may seize several objectives that destroy the continuity of the enemy defense. Enemy forces bypassed by the leading forces in the penetration are engaged by follow-on forces. If it becomes impractical to sustain more than one penetration, the one having the greatest success is used to destroy the enemy in detail.

(13) With the employment of helicopters, a penetration may be accomplished by landing a helicopterborne force behind the enemy defensive positions and rupturing them from the rear. This maneuver involves elements of the vertical envelopment.

(14) If tanks are available, they will contribute to the power and violence of the main attack. Tanks and other means of ground mobility will increase the momentum of the main attack and lend themselves to the exploitation.

(15) When nuclear fires are authorized and available, they may be used to rupture the enemy defensive positions. Because of the damage caused by nuclear fires, a penetration may be a more desirable form of maneuver than it is when nuclear fires are not employed. Their use would make multiple penetrations at division and regimental levels more feasible. Care must be taken in preparing the nuclear fire plan and the scheme of maneuver to ensure troop safety.

(16) Chemical fires may be used to facilitate a penetration. Smoke may be used to limit the enemy's observation and toxic, nonpersistent chemical agents may facilitate the rupture of the enemy defensive positions. As with nuclear fires, care must be exercised to ensure troop safety.

d. Envelopment.--In the envelopment, the enveloping attack passes around or over the main enemy defensive positions to seize objectives in the enemy's rear. The envelopment causes the enemy to fight in two or more directions, and its success depends on surprise, mobility, and the ability of supporting attacks and deception to hold the enemy in place. (See fig. 12.)

(1) In the ground envelopment, the enveloping attack is directed against an assailable flank. An assailable flank is one that can be circumvented without fighting a major engagement.

(2) When committed, the enveloping force moves rapidly to seize assigned objectives in the enemy rear. Rapid movement is essential to prevent the enemy from redeploying his forces against the enveloping force or occupying prepared positions. The enveloping force avoids strong enemy defensive positions and bypasses enemy forces that may delay it in reaching assigned objectives. Security forces are designated to protect the flanks of the enveloping attack. If the enemy extends his front to cut off the enveloping force, the commander may decide to penetrate the enemy's extended

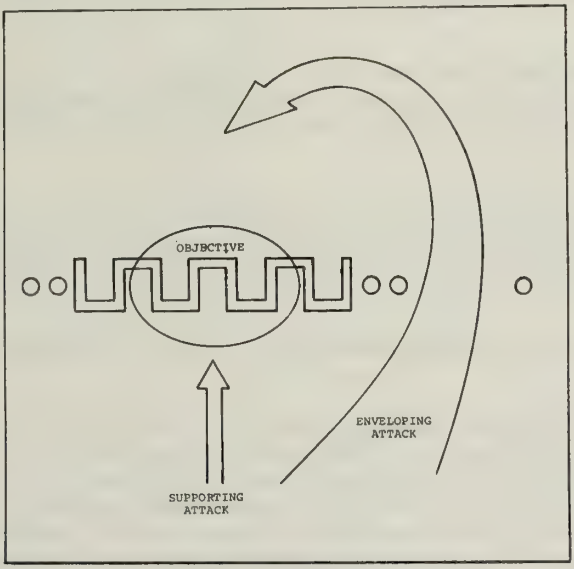


Figure 12.--Envelopment.

front. Attempting to outflank the enemy's extended front may be dangerous due to separation of the enveloping force from the supporting attack.

(3) The primary purpose of the supporting attack is to render maximum assistance to the enveloping attack. A vigorous supporting attack holds the enemy in position and prevents him from maneuvering against the enveloping force. In some situations, the supporting attack may deceive the enemy as to the existence or location of the enveloping attack. It must have sufficient combat power to seize limited objectives and keep the enemy engaged.

(4) The reserve normally follows the enveloping force but the commander is alert to exploit success of the enveloping or supporting attacks.

(5) Preparation fires may precede the enveloping attack and/or the supporting attack. If they are used for the enveloping attack, preparation fires are short and intense. Fire support is used to help hold the enemy in place and prevent his maneuvering against the enveloping attack. Fire support is also used to neutralize enemy forces bypassed by the enveloping attack and to destroy the depth of the enemy defense.

(6) Objectives for the enveloping attack are picked to subject the enemy to destruction in position from the flank or rear. They include command and control installations, fire support means, and escape routes. Limited objectives are assigned to the supporting attack to facilitate support of the enveloping attack by holding the enemy in place.

(7) The enveloping and supporting attacks may be launched simultaneously or they may be staggered to divert the enemy. If staggered, the supporting attack is launched first as a diversion to mask the noise and direction of the enveloping attack. Minimum control measures are assigned to the enveloping attack. A zone of action may simplify control and coordination with an adjacent supporting attack or an axis of advance may be used.

(8) Helicopters may be used to make a vertical envelopment over the main enemy defensive positions. They provide the means of delivering fresh troops on or near assigned objectives and increase the mobility and surprise of the attack.

(9) When nuclear fires are authorized and available, they may be used to create an assailable flank for the enveloping attack. Care must be taken in preparing the nuclear fire plan and the scheme of maneuver to ensure troop safety.

(10) The double envelopment and turning movement are variations of the envelopment.

(a) A double envelopment is executed by two forces that pass around both flanks of the enemy. Normally, a supporting attack fixes the enemy in place. The amount of combat power required for two enveloping forces, a supporting attack force, and the reserve (four maneuver elements) may prevent the division from executing this type of maneuver unless it has very strong nuclear support or is opposed by an inferior enemy. Precise coordination and timing are necessary for a double envelopment. (See fig. 13.)

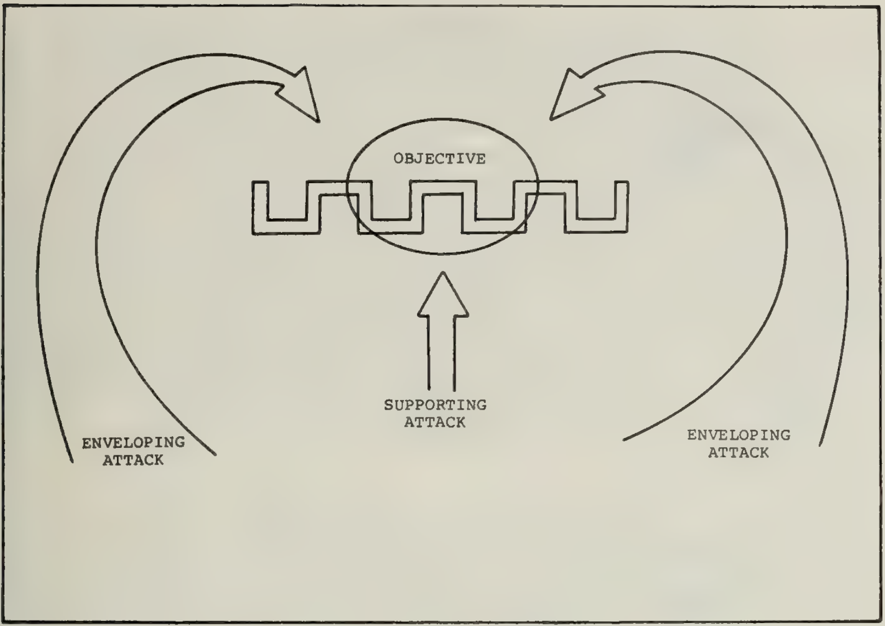


Figure 13.--Double Envelopment.

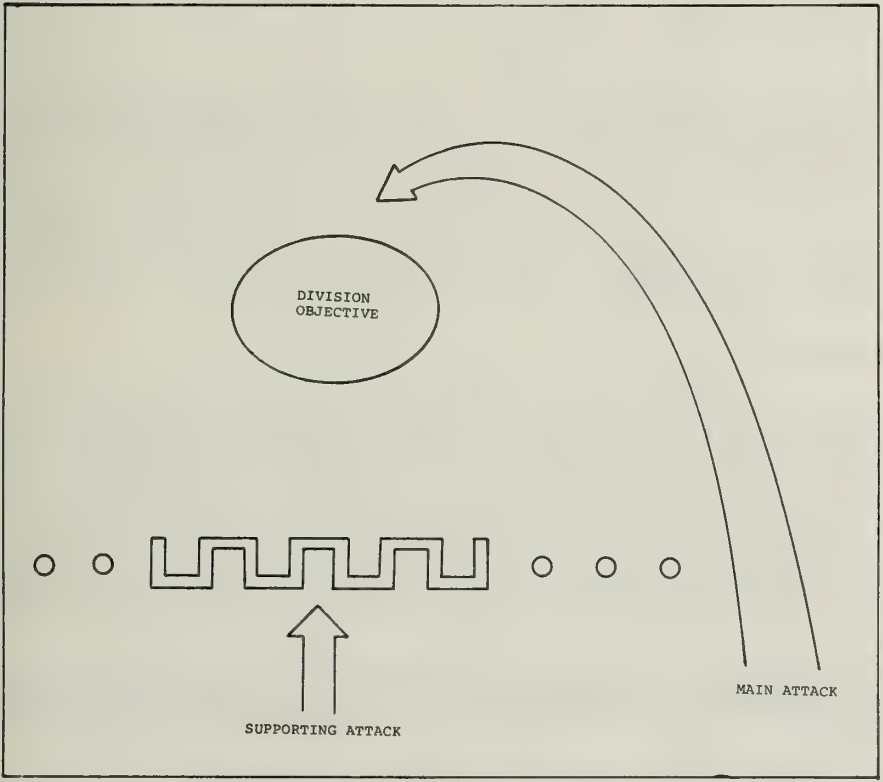


Figure 14.--Turning Movement.

(b) In the turning movement, the attacking force seeks to pass around the enemy, avoiding his main strength, to secure an objective deep in the hostile area. The turning movement differs from the envelopment in that it is not directed at the destruction of the enemy position. The purpose of the turning movement is to force the enemy to abandon his position or divert major forces to meet the threat. The enemy is then destroyed at a time and place of the attacker's choosing. A supporting attack may be required to fix the enemy. Since the force executing the turning movement is usually out of support distance of other elements of the force, it must be sufffciently mobile and possess adequate combat power to operate independently. Under certain conditions, the division may execute a turning movement within its own resources; however, it normally lacks adequate combat power. It usually participates as part of a larger force. Helicopters are particularly applicable for movement and initial support of this maneuver. Mobility superior to the enemy, secrecy, and deception enhance the opportunity of success. (See fig. 14.)

607. COORDINATION AND CONTROL

a. General.--The coordination and control measures adopted by the division commander during offensive action ensure the unity of effort necessary for the efficient application of combat power. Control measures do not assign missions. Mission assignments are made in the operation order. Measures which unduly restrict initiative, flexibility, and freedom of action of subordinate units are avoided. However, the division commander must employ the control and coordination measures necessary to ensure rapid response to his will. Control measures are illustrated in figure 15 and discussed in the following paragraphs.

b. Objectives.--An objective is a control measure which designates a terrain feature that must be seized or controlled. Objectives are designated to ensure the accomplishment of the mission, facilitiate future operations, facilitate the destruction of the enemy, deny critical terrain to the enemy, and enhance the security of the command. Objectives must be consistent with the ability of the unit assigned to seize and control them. Their seizure must meet reasonable time and space criteria. The mobility provided by the helicopter and the combat power of the division enhance the division's ability to seize deep objectives.

c. Boundaries

(1) Boundaries are used to guide the forward advance of units in the attack and to control the fires and maneuver of two adjacent units. A boundary should extend forward beyond the objective at least to the depth necessary for coordination of fires in the seizure and consolidation of the objective. Boundaries are extended rearward from the FEBA to the extent necessary to ensure that sufficient space is provided for the force concerned, including its command and logistics installations. The rearward projection of the boundaries defines the rear limit of the unit's area of responsibility.

(2) Units may move and fire temporarily across boundaries only after coordinating with the adjacent unit and notifying the next higher command.

(3) Boundaries delineate a zone of action which should provide adequate maneuver space for the unit to which it is assigned. The ability of the division commander to control the attack, the degree of mutual support

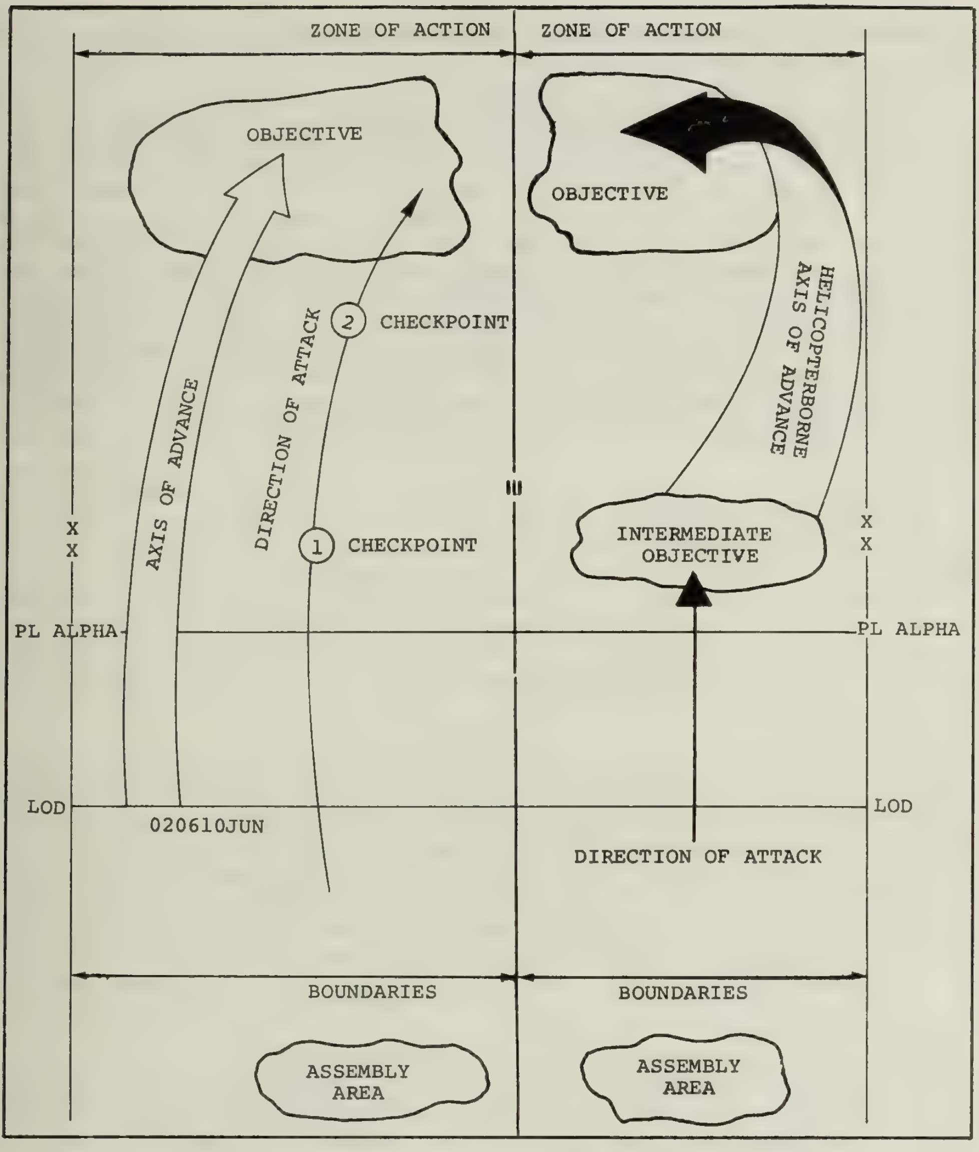


Figure 15.--Control Measures Employed in the Attack.

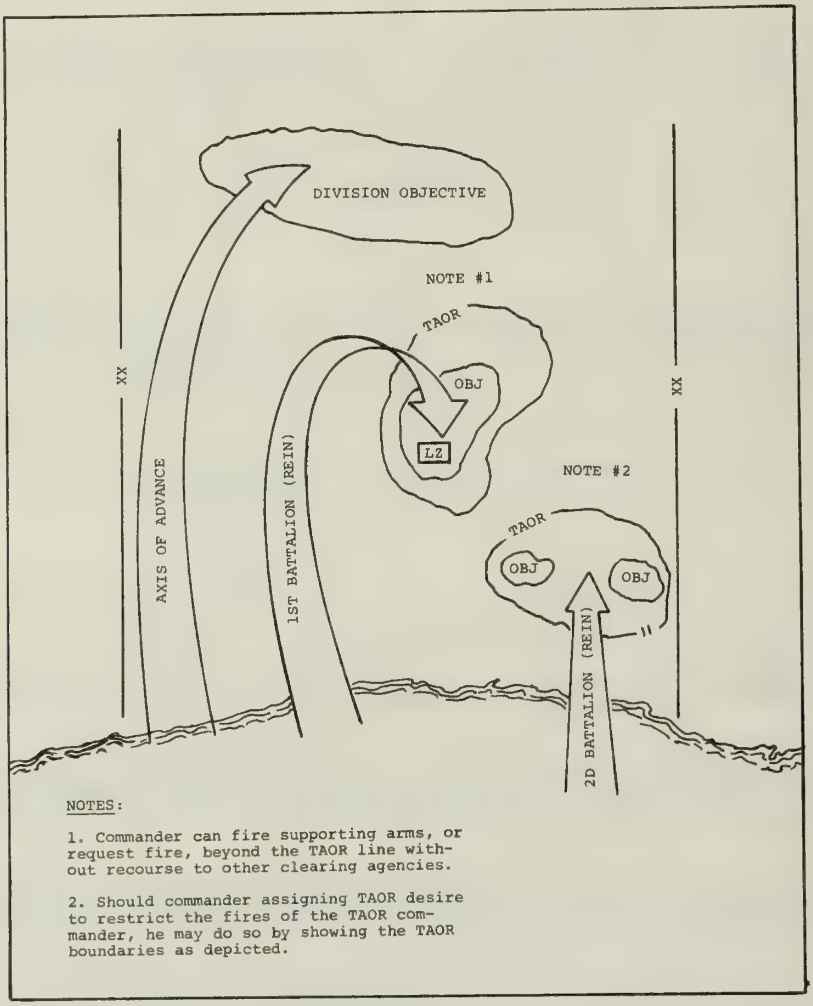
desired, the required unit separation, the assigned mission, the weather and terrain, and the overall enemy and friendly situations are factors in determining the size of a zone of action.

(4) When boundaries are used to indicate an area that is to be cleared of enemy forces, the operation order must clearly specify this purpose. In this case, the only control measure will be boundaries.

(5) Boundaries are normally assigned along terrain features easily recognized on the ground. If the avenue of approach selected is in a corridor or along the limiting features of a corridor, the commander

places his boundaries so as to secure the advantages inherent in those approaches.

d. Tactical Area of Responsibility (TAOR).--The TAOR is a defined area of land for which responsibility is specifically assigned to the commander of the area as a measure for control of assigned forces and coordination of support. The TAOR is employed where conditions of wide unit separation require a distinction between localities containing objectives and extensive intervening areas that may be maintained under surveillance. This control measure is employed when the dispersed character of combat so dictates. It is most often used in connection with helicopterborne operations. The commander of the force assigned the TAOR may conduct operations in any portion of it that he desires; however, he is required to seize and/or defend only those tactical localities that are designated as objectives. All operations and all fires delivered within the TAOR are conducted by or coordinated with, the commander concerned. Fires delivered



NOTES:

1. Commander can fire supporting arms, or request fire, beyond the TAOR line without recourse to other clearing agencies.

2. Should commander assigning TAOR desire to restrict the fires of the TAOR commander, he may do so by showing the TAOR boundaries as depicted.

Figure 16.--Assignment of TAOR's.

outside the periphery of the TAOR, the effect of which may transcend the boundary, must also be coordinated with the commander concerned. When a TAOR is assigned to a commander, the assignment includes explicit instructions as to the tasks to be accomplished therein, as well as instructions necessary to ensure coordination with the operations of other forces. (See fig. 16.)

e. Assembly Areas

(1) Desirable features of an assembly area are concealment from air and ground observation, space for dispersion, cover, multiple entrances and exits, natural antimechanized protection, and that it be located beyond the effective range of short-range weapons.

(2) Assembly area security measures extend from establishment of observation posts to the installation of perimeter defense. Passive means are also employed.

(3) In the event of a serious threat of enemy attack with nuclear weapons, the use of forward assembly areas is kept to a minimum. As a unit approaches the area of anticipated contact, assembly areas are avoided. A unit initiates action from an area well behind the line of departure. Crossing the line of departure, the unit engages the enemy without halting or massing. It may be desirable to assign separate lines of departure and times of attack to different units of the division to permit separation in width and depth.

f. Attack Positions.--The division does not use an attack position nor does it assign attack positions to its subordinate elements except in the case of attack by infiltration. Although commanders of company-sized units normally select or designate their own attack positions, attacking units such as a battalion may assign attack positions to subordinate units. This facilitates deployment before crossing the lines of departure. A unit in an attack position may present a vulnerable target to nuclear weapons. Consequently, an attack position is occupied only if necessary, and then for the minimum essential time; normally, only that time required to complete deployment.

g. Line of Departure.--The line of departure is designated to coordinate the attack as to time and direction, as well as to facilitate coordination of supporting fires. It should be easy to identify, reachable with minimum exposure to enemy observation or flat trajectory fires, perpendicular to the direction of attack, and under friendly control. Regiments may find it necessary to select lines of departure other than those specified by the division; however, they must cross the division line of departure at the time specified in the division order. In moving situations, the line of departure is frequently the line of contact.

h. Time of Attack.--Time of attack is normally the time established for the leading element to cross the line of departure. It is used to ensure coordination of fire and maneuver and is prescribed in the division operation order.

i. Axis of Advance.--The axis of advance is the least restrictive directional control device. It may be employed in very broad-front amphibious assaults where the coordination between zones of action is not necessary. Depending on the mission, it permits a unit to bypass enemy forces that do not effectively endanger its forward movement. However, the location and estimated strength of all bypassed forces are reported to higher command. Short boundaries may be used in conjunction with an axis of advance when close control of maneuver forces and coordination of weapons employment are required. Designation of an axis of advance does not necessitate a unit movement in a column formation, as it only indicates a general line of advance.

j. Direction of Attack.--A direction of attack is a specific direction within a zone of action over which a subordinate unit is required to direct its main attack. It is highly restrictive and used only when necessary as in a closely coordinated plan of maneuver, a night attack, or a counterattack. A direction-of-attack arrow extends on a map or operation overlay from line of departure to the objective.

k. Phase Lines.--Phase lines may be used to control and coordinate the rate of advance or to establish a basis for reporting locations. They should be clearly indicated on maps utilizing recognizable terrain features so they can be easily located on the ground. Control/checkpoints such as crossroads, road junctions, bridges, etc., also can be used for the same purposes as phase lines. Unless directed otherwise, units do not stop at phase lines, but merely report crossing them.

l. Checkpoints.--Checkpoints are used for orientation, for requesting supporting fires, and for making situation reports in the clear. Checkpoints may be used to supplement phase lines or in lieu of phase lines.

608. PLANNING THE ATTACK

a. General.--The planning sequence begins with the receipt of a mission. Based on information available to him from his staff and from higher, lower, and adjacent units, the commander initiates his estimate by analyzing and restating the mission and issuing his planning guidance. Based on this guidance, the staff prepares and presents estimates and recommendations. The commander then completes his estimate by analyzing the opposing courses of action. He then compares the advantages and disadvantages of the various courses of action and makes his decision. He states his decision in terms of who, what, when, where, how, and why. During the process of analysis and comparison of courses of action, the commander will develop his concept of operation which provides the staff with sufficient guidance to translate the decision into plans and orders. See FMFM 3-1, Command and Staff Action, for sequence of actions.

b. Formation of Task Groups.--The division commander implements his decision by allocating combat power to support his plan of attack. In accomplishing this, he may form temporary task groups consisting of combat forces, combat support forces, and combat service support units. The infantry battalion is the basic maneuver element of the division. The organization of the Marine division lends itself to the formation of task groups based on the regiment and infantry battalion. The division reconnaissance battalion, artillery regiment, tank battalion, assault amphibian battalion, and combat service support units are designed to facilitate combat grouping with the basic infantry formations.

(1) Combat service support units are organized to provide balanced, self-contained elements that may be attached to regiments or battalions. The division combat engineer battalion is organized so that one

company may be attached to, or placed in support of, each infantry regiment. (See app. A, fig. 37.) The truck company is organized to provide general support to the entire Marine division or to provide detachments in direct support of infantry units. Elements of the force service support group, as well as force troops combat service support units, may be assigned to the division to assist in meeting logistics support requirements.

(2) Force troops artillery units may be attached to the division to augment any of the organic artillery elements, or they may be assigned tactical missions in support of the division.

(3) Naval gunfire support is normally provided by assignment of a destroyer in direct support of each committed battalion; a cruiser or a converted light or heavy cruiser (conventional weapons forward, missile aft) in general support of a regiment or higher echelon. Battleships may be available in the event of mobilization and may support a regiment or higher echelon. Each artillery battalion contains two naval gunfire control parties for employment with two battalions of the supported infantry regiment. If additional naval gunfire spotting teams are required, they are obtained from an artillery battalion whose supported infantry regiment is not employing naval gunfire support at the time. When naval gunfire support is not available, these spotting teams are utilized to establish observation posts, as additional artillery observers, and other similiar duties.

(4) Air support is provided to the Marine division by Marine aviation units assigned to the landing force and by naval aircraft, operating under control of a tactical air command center (TACC), and related air control agencies. These units provide close air support to elements of the division on request through tactical air control parties organic to the division. In certain situations, air support may be from U.S. Air Force or Allied aviation units.

c. Scheme of Maneuver

(1) Main Attack.--The main attack force is assigned the mission of seizing the decisive objective. Successful offensive action requires the concentration of superior combat power at the decisive point and time. This requires that the division mission be analyzed and, if possible, translated into specific objectives, which when secured, permit control of the area to facilitate destruction of the enemy force. When it can be determined that the seizure of a single objective will contribute most to the accomplishment of the division mission, this objective is called the decisive objective. The division main attack is directed against it. Main and supporting attacks are not mandatory when there is no decisive objective. This occurs infrequently. The main attack is a weighted attack. The commander assigns the bulk of his combat power to maintain the momentum of the main attack to ensure the seizure of the principal objective. It is normally given the greatest mobility means. Strong combat support and combat service support is provided to ensure a sufficiency of combat power at the decisive time. Reserves are positioned or echeloned in depth so as to be readily available to assist the main attack force. The axis of the main attack is based on an analysis of the following:

(a) Enemy strength and disposition to include nuclear weapons employment capability.

(b) Weather, terrain, and trafficability.

(c) Maneuver room requirements.

(d) Time and space requirements imposed by higher headquarters or implicit in the mission of the division.

(2) Supporting Attack.--The division commander conducts supporting attacks, as required to facilitate the progress of the main attack. He assigns minimum essential combat power to a supporting attack force consistent with its ability to accomplish the assigned mission. Supporting attacks are characterized by assignment of wider zones of action and the seizure of limited objectives. It is desirable that the supporting attacks deceive the enemy as to the location of the main attack, prevent enemy disengagement, cause the enemy to commit forces indecisively, and delay his reaction. In the amphibious assault particularly, supporting attacks including feints and demonstrations may be effective. The supporting attack force may achieve unexpected success and the division commander must be ready to quickly shift combat power and redesignate the supporting attack as the main attack.

(3) Reserve

(a) One of the ways the division commander retains flexibility in influencing the action is by maintaining an adequate reserve. The reserve may have priority over the supporting attack in the allocation of combat power. When nuclear weapons are available, the requirement for a large troop reserve may be considerably reduced. The reserve may be employed to:

1 Exploit a success.

2 Counter enemy action.

3 Exploit an enemy weakness.

4 Provide flank security.

5 Eliminate bypassed enemy resistance.

6 Retain the initiative and impetus of the attack.

7 Relieve a unit of the assault when it has become depleted or disorganized.

8 Perform rear area security missions.

(b) The reserve is normally located for maximum protection against enemy fire and observation. However, in order to keep abreast of the situation, the commander of the reserve is normally with the division commander. The location of the reserve is influenced by its intended employment, usually in an area that favors the main attack force. When helicopterborne employment of the reserve is feasible, the requirement for available loading areas is considered. Its distance from the attacking elements is based on enemy capabilities and the time and space factors incident to its possible commitment. In amphibious assaults, the positioning of the reserve afloat must be responsive to the division commander's requirements for its employment ashore. If helicopters are readily available for its displacement ashore, the reserve may be held at sea longer than when landing by landing craft.

(c) The timing of the employment of the reserve should be such that it is committed when its employment will result in maximum benefit. It should be employed to exploit success and not to reinforce failure. The reserve is normally not committed piecemeal.

(d) The division reserve changes its location only on order of the division commander. Once the reserve has been landed, it may be desirable for it to move continuously behind the assaulting elements rather than by bounds, thus presenting a less vulnerable target.

(e) The decision to commit the reserve rests with the division commander; however, he notifies the next higher commander of its commitment and reconstitutes a new reserve at the earliest opportunity.

d. Fire Support Planning

(1) General.--In amphibious assaults, a coordinated and detailed fire plan assumes great importance. Both nuclear and conventional fires may be employed from the outset or the operation may be conducted wholly, or in part, under the threat of nuclear attack. In the latter case, primary plans must be based on the use of high explosives, with a nuclear fire support plan prepared and ready for implementation on short notice. When nuclear weapons are being used, it is essential that the plan be completed and disseminated to all units concerned in sufficient time for them to take all the necessary actions--either in connection with delivering the nuclear weapons, exploiting their effects, or taking cover as a protective measure against the initial effects. Physical separation of units complicates the use of elaborate overlays and schedules which must be disseminated up and down the chain of command by hand. Simplicity of plans and their rapid dissemination are emphasized.

(2) Phases of Fire Support.--In offensive operations, supporting fires may be categorized chronologically as: fires delivered prior to the preparation (preassault and prelanding fires in amphibious operations), preparation fires (pre-H-hour preparation fires in amphibious operations), and fires in support of the attack. Plans include provision for employing supporting arms (air, artillery, and naval gunfire) on appropriate targets throughout all phases of the operation.

(3) Sequence of Development of Fire Plans

(a) The impetus of fire planning is from front to rear, but higher echelons need not wait for the plans from subordinate units before commencing their own planning. Fire support planning is continuous and concurrent at all echelons of the command. The fire support planning process is initiated at division level by announcement of the division commander's concept of operations which includes the broad outline of the commander's concept of fire support. This concept should provide guidance in the following areas:

1 General targets or areas which are of particular importance and against which particular supporting arms must deliver or be prepared to deliver fires.

2 Maneuver elements to receive priority of supporting fires during a particular phase of the operation.

3 Exclusive or exceptional reliance upon a particular supporting arm to support a particular maneuver phase of accomplishing a particular task.

4 Whether or not a preparation is to be fired, if so, the approximate duration and intensity of such fires.

5 Extent of planning required for the employment of nuclear and chemical fires to include effects desired and troop safety.

6 General guidance relating to restrictions on use of fire support (surprise, conserve ammunition, restricted targets, etc.).

7 For artillery, in general terms, the time and place of landing.

(b) Fire support planning involves not only the translation of the commander's concept into a definitive plan which portrays the supported unit's requirements, but it also involves the detailed planning which must be accomplished by the control elements of the supporting arms involved in order to effect delivery of the supporting fires. Except in unusual cases, time is at a premium. The designation (by SOP or otherwise) of areas of primary fire planning responsibility will enable every echelon to make the maximum use of available time.

1 The lateral limits of areas of primary fire planning responsibility are usually established by unit boundaries.

2 The depth of the area of primary fire planning responsibility may be established by boundaries, by objectives, by phase lines, or by other control measures. In order to avoid omission of important targets, areas should overlap in depth.

(c) The infantry company formulates its plan based upon the mission and scheme of maneuver of the company. Fires are planned on known and suspected enemy positions and for protection after the seizure of each successive objective. This plan, which is in the form of a list of targets, is sent to the infantry battalion where it is integrated and coordinated with the plans submitted by the other companies, and with the plan which the battalion has prepared in its area of primary fire planning responsibility. Upon approval by the battalion commander, the battalion plan, including those of the companies, is transmitted by the appropriate fire support representative to the fire support agency represented.

(d) The battalion fire plans, less those of the companies, are transmitted to the regiment where they are consolidated and coordinated with each other and with the plan which the regiment has prepared in its area of primary fire planning responsibility. Upon approval by the regimental commander, the regimental plan, including those of the battalions, is transmitted by the appropriate fire support representative to the fire support agency represented.

(e) The regiment plans, less those of the battalions, are transmitted to the division where they are consolidated and coordinated with each other and the plan which the division has prepared in its area of primary fire planning responsibility. When changes in the regiment plans are required, the regiments are notified, who in turn notify the fire support agency involved. Upon approval, the division fire plan, less those of the regiments, is transmitted by the appropriate fire support representative to the fire support agency involved.

(f) By the process outlined above, it should be apparent that planning, consolidation, and coordination are being conducted concurrently at every echelon. As a general rule in the case of conflicting requirements between higher and lower echelons, the requirement of the lower echelon should take precedence.

(g) When nuclear weapons are to be employed, the nuclear fire plan is developed first, and high explosive fires are designed to supplement nuclear effects and provide necessary close support to the maneuver elements (see FMFM 11 series on nuclear and chemical operations in the Fleet Marine Force).

609. TYPES OF OFFENSIVE OPERATIONS

a. General.--There are three tasks to be performed in carrying the battle to the enemy: locating and holding the enemy in position; maneuvering against him to gain a tactical advantage; and at the decisive time and place, delivering an overwhelming assault which destroys him. In order to accomplish these tasks, five general types of offensive operations have evolved: movement to contact, reconnaissance in force, coordinated attack, exploitation, and pursuit.

b. Movement to Contact

(1) General

(a) A movement to contact is a tactical operation to gain initial contact with the enemy or to regain lost contact. The purpose is the early development of the situation to provide an advantage prior to decisive engagement.

(b) It may take the form of an administrative march when contact with the enemy is remote, a tactical column when contact is improbable, or an approach march when contact is imminent. As the probability of contact increases, security becomes increasingly important.

(2) Security

(a) Every collection means and agency is used to secure information about the enemy to prevent surprise and to gain a maneuver advantage. When contact becomes imminent, reconnaissance and security measures are intensified and formations are adopted which allow continuation of movement or facilitate immediate entry into combat.

(b) The use of concealed routes and assembly areas, movement by protected routes, night movement, unit dispersion, and increased interval within columns are measured against enemy attack.

(c) Movement should not be unnecessarily delayed or restricted by security measures. Speed and mobility will enhance security.

(3) Planning

(a) Although the movement to contact must be carefully planned, regimental commanders should be given maximum authority and freedom of action in order to move rapidly and aggressively.

(b) March objectives, phase lines, checkpoints, and axes of advance are employed. The division must be able to plan and disseminate mission-type orders to effectively commit itself in a coordinated attack when the situation calls for it.

(4) Approach March.--Regardless of the method used, the force conducting the movement to contact uses the approach march formation when contact with the enemy is imminent. The force organized for the approach march consists of three primary components: advance guard, main body, and flank and rear guard.

(a) Advance Guard.--The advance guard operates ahead of the main body to ensure its uninterrupted advance and to protect it from surprise attack.

(b) Main Body.--The bulk of the force's combat power is contained in the main body and is immediately available to attack major enemy forces or the force objective. Units within the main body are organized for combat and are positioned so as to permit maximum versatility for employment during the advance or after contact with the main enemy force has been made.

(c) Flank and Rear Guard.--Flank and rear guard forces, operating either under control of the main body or elements of the main body, protect it from ground observation, direct fire, and surprise attack. These forces must be strong to defeat minor enemy forces or to delay strong enemy attack until the main body can deploy.

(5) Meeting Engagement

(a) During the movement to contact, the division may be confronted with a meeting engagement. This situation could occur at a point in time when sufficient intelligence is unavailable and units are not fully deployed for combat.

(b) The initial requirement is to develop the situation sufficiently to determine the nature of the enemy force and its capabilities. The main objective of subsequent actions of the division must be to seize and maintain the initiative. Without this, the division commander can only react to the enemy's movements.

(c) Some of the courses of action for the commander to consider in this situation are enumerated below:

1 Attack piecemeal from march formation as fast as units can be brought into battle.

2 Reconnoiter and contain the enemy force and defer decisive commitment until sufficient units can be massed for a coordinated offensive or defensive action.

3 Attempt to break contact and avoid or bypass the enemy force.

c. Reconnaissance in Force

(1) General

(a) The reconnaissance in force is an attack conducted with the purpose of discovering and testing the enemy's dispositions and strength and to precipitate action. Although its primary purpose is reconnaissance, it may discover weaknesses in the enemy dispositions which, if promptly exploited, may permit tactical success by a coordinated attack.

(b) When the availability of nuclear weapons permits, and are authorized, the regiment may be employed in widespread and continuous reconnaissance in force operations. Under these conditions the reconnaissance in force locates the enemy units and forces or lures them into forming targets. It subsequently holds them in this configuration until nuclear fires can be used. Designated elements then complete their destruction by coordinated attack. The regimental reserve is held ready to replace or relieve maneuver elements or to exploit opportunities which may develop.

(c) See figure 17 for an example of an infantry division conducting a reconnaissance in force.

(2) Basic Considerations

(a) The reconnaissance in force normally develops information more rapidly and in more detail than other reconnaissance methods. In arriving at a decision to reconnoiter in force, the commander considers the:

1 Extent of his present knowledge of the enemy situation and the urgency and importance of the additional information sought.

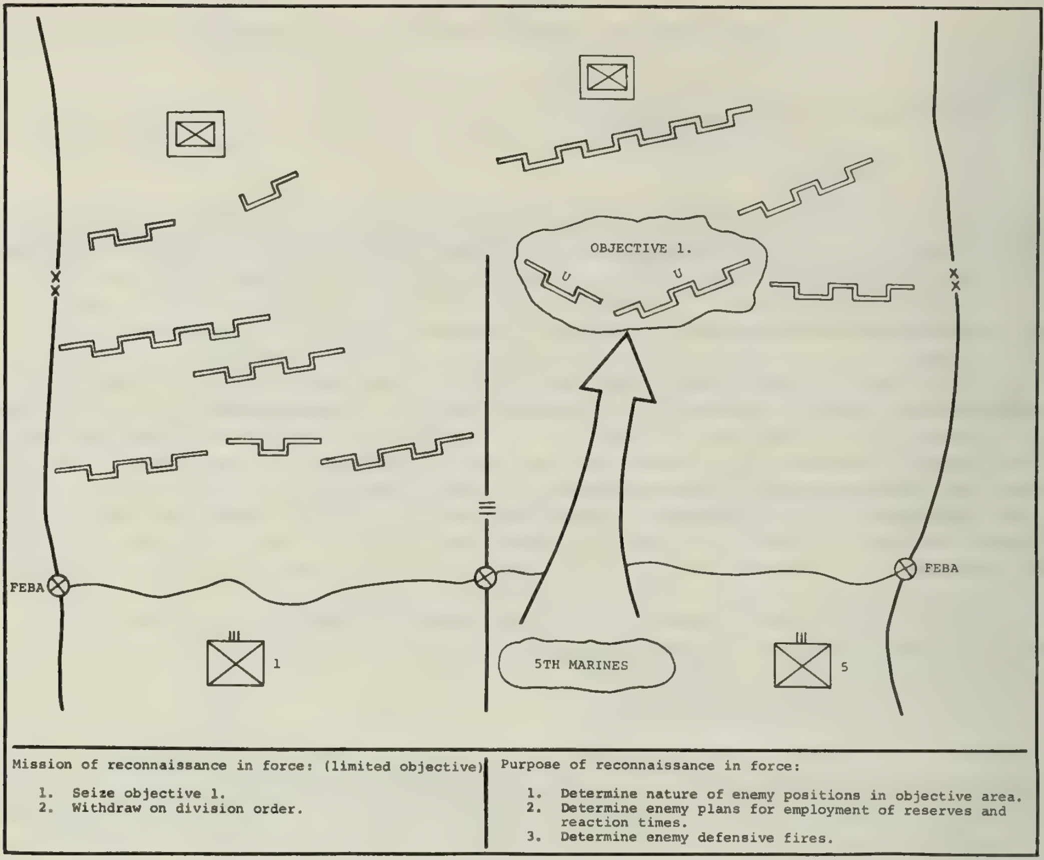
2 Efficiency and speed of other intelligence collection agencies.

3 Extent to which his overall plan of action may be divulged by the actions of the reconnaissance in force.

4 Possibility that the reconnaissance in force may lead to a general engagement under conditions which are unfavorable to the division.

(b) When information is sought concerning a particular area, the reconnaissance in force is planned and executed as an attack with a limited objective. If the enemy situation along a front is to be developed, the reconnaissance in force is conducted as strong, aggressive probes to determine the enemy situation at critical points.

(c) The reconnoitering force must be of size and composition to cause the enemy to react strongly and definitely to the attack, thus disclosing his locations, dispositions, strength, planned fires, and planned use of the reserves. The division commander may use a regimental task force as the reconnoitering element or he may use the bulk of the division retaining sufficient reserves to exploit enemy weaknesses.



Mission of reconnaissance in force: (limited objective)

1. Seize objective 1.
2. Withdraw on division order.

Purpose of reconnaissance in force:

1. Determine nature of enemy positions in objective area.
2. Determine enemy plans for employment of reserves and reaction times.
3. Determine enemy defensive fires.

Figure 17.--An Infantry Division Conducting a Reconnaissance in Force (Limited Objective Attack, Directed Toward an Area).

(d) Units designated to make the reconnaissance in force are assigned sufficient combat power and mobility to uncover main enemy positions. A balanced force of tanks and troop vehicles is generally considered the best approach.

(3) Conduct of the Reconnaissance in Force

(a) Although reconnaissance in force is a form of attack, restrictions may be placed upon the commander of the force to avoid actions which might precipitate a general engagement.

(b) The division commander is alert to exploit success achieved by the reconnaissance in force. Such actions include continuation of the attack or control of terrain seized by the force. Suitable targets discovered by the forces are attacked and their destruction is completed through local exploitation by the reconnoitering force.

(c) The division commander prepares to assist in the extrication of the force if it becomes closely engaged.

(d) Upon completion of its reconnaissance, the force may remain in contact with the enemy or may withdraw. If the reconnaissance is to be followed by a coordinated attack, other units pass through the reconnoitering force or the reconnoitering force may progress to the coordinated attack.

d. Coordinated Attack

(1) General.--A coordinated attack is a deliberate attack that is planned in detail and normally undertaken after thorough reconnaissance, methodical evaluation of relative combat power, acquisition and development of targets, and an analysis of all other factors affecting the situation. It may be made before or after other types of offensive operations. This is the type of operation which comes to mind most frequently when the terms offensive or attack are used. The coordinated attack is designed to destroy the enemy in position or in an area the attacker chooses. It is conducted after the situation has been as thoroughly developed as time permits when an enemy position, usually well organized, must be destroyed or penetrated. The use of combined arms, consisting of infantry, armor, artillery, aviation, troop vehicles, and all other available combat support means in coordination, contribute materially to its success. The objective of the overall force in a coordinated attack is the complete destruction of the enemy. The objectives of subordinate elements of the force vary from the seizure of terrain features to the neutralization of combat support and service support elements of the enemy force. The type objective assigned to a particular subordinate element depends on its mission within the overall scheme of maneuver.

(2) Conduct.--The coordinated attack is characterized by complete integration of the effort of all means available, mutually supporting arms, and by fire and maneuver/movements. The attack is usually preceded by preparatory fires, wherein the base of fire places a heavy volume of fire on preselected targets for specified periods of time. These fires are coordinated with the forward movement of the maneuver force. Elements of the maneuver force move rapidly from dispersed formations until required to mass to achieve sufficient combat power to overcome enemy resistance. The attack plan is aggressively executed, and all favorable developments are exploited. If the attack lags in one portion of the zone, the weight of the attack is shifted to the area offering the most opportunity for success. As enemy resistance is encountered, maneuver elements converge, following their supporting fires closely until they are within assaulting distance of the hostile position. The assault is a short, well coordinated, and violent effort which overruns or destroys the enemy. The goal of the assault is to bring upon the enemy, simultaneously, the maximum combat power of infantry, tanks, aviation, and other fire support means necessary to destroy him as rapidly as possible with minimum casualties to friendly personnel and material assets. Upon destruction of the objective, all means are quickly reorganized and used to continue the attack without delay. Due to the nature of this type operation, the fundamentals of combat operations and offensive tactics are particularly applicable, especially the actions the commander takes to generate maximum combat power and retention of the initiative by bold and aggressive employment of overwhelming combat power at the decisive time and place.

e. Exploitation

(1) General.--Exploitation is taking full advantage of success in battle and following up initial gains. While individual local exploitation may appear insignificant, cumulative effects of such actions may be

decisive. The division may be engaged in exploitation of its own success, may be employed as the exploiting force for a higher echelon, or may be assigned to follow and support another exploiting force.

(2) Basic Considerations

(a) Exploiting forces may be given the mission of destroying objectives deep in the enemy rear, cutting lines of communication, surrounding and destroying enemy forces, denying escape routes to an encircled force, or destroying enemy reserves.

(b) Speed and combat power are required by exploiting forces. Tank units and mechanized infantry normally make up the forward elements. Helicopters are used to provide mobility to foot elements. Provisions are made for engineer support to overcome obstacles. Adequate communication support must be furnished.

(c) Preparation for exploitation entails planning the exploitation, issuing warning orders, grouping necessary forces, providing for logistic support, and establishing communications.

(d) The division commander must be ready at all times to exploit opportunities afforded by the enemy. Opportunities for major exploitations are indicated by an increase in prisoners captured, an increase in abandoned materiel, and the overrunning of artillery, command facilities, communication installations, and supply dumps. This transition from attack to exploitation may be so gradual as to be hardly distinguishable, or it may be abrupt. The latter occurs most frequently when nuclear weapons are used.

(e) When nuclear fires are not available or their use is limited, the exploitation normally occurs after the successful assault or destruction of the division objective. With adequate nuclear support, however, the exploitation may be launched in conjunction with the initial assault or at any time thereafter, dependent upon the effects of the fires and the desires of the commander.

(f) Once the exploitation is begun, it is carried out without interruption to the final objective. THE ENEMY IS GIVEN NO RELIEF FROM THE PRESSURE OF THE OFFENSE.

(g) Decentralized execution is characteristic of the exploitation. However, the division commander maintains sufficient control to prevent over-extension of the command. Minimum control measures are used. Combat service support and combat support plans are flexible and combat service support operations are normally decentralized.

(h) In the exploitation, nuclear, conventional, and chemical weapons are used principally on targets of opportunity. These weapons are used to eliminate pockets of resistance, destroy hostile reserves, seal enemy escape routes, and destroy enemy nuclear delivery means.

(i) Reconnaissance type aircraft maintain contact with the enemy, locate enemy movements, and keep the command advised of enemy activities. Supporting aircraft inflict maximum damage by attacking enemy routes especially at defiles, reserves, and withdrawing columns.

(j) Class III consumption rates normally are high and provision for rapid resupply is essential. Security of ground supply columns must be considered since forward elements may be operating behind bypassed enemy forces. Aerial resupply may be necessary.

(3) Conduct of the Exploitation

(a) Employment of forces in the exploitation is similar in many respects to movement to contact. Attack from march column is normal. Exploiting forces advance rapidly and arrive at their objectives with maximum strength. The exploiting force clears only as much of its zone as necessary to permit continuation of the advance. Commanders avoid dissipation of forces in the minor tactical efforts. Enemy forces which interfere or can interfere with accomplishment of the mission are destroyed. Exploiting forces bypass or contain enemy resistance of insufficient strength to jeopardize the accomplishment of the mission with minimum forces. Bypassed enemy forces are reported to higher headquarters or to the following units.

(b) When the leading elements of a march column make contact with enemy forces, they deploy and attempt to bypass or to continue to advance. If the resistance is too heavy for the leading elements to overcome or cannot be bypassed, they develop the enemy position and report their action to the main body. Succeeding elements in the column are employed to strengthen the leading elements, to execute a coordinated attack.

(c) Commanders use all means and weapons to overrun enemy forces which cannot be bypassed or contained. Exploitation continues day and night without regard to weather. Reconnaissance elements, both ground and air, keep commanders informed of enemy action. Rapid advance of exploiting forces reduces their vulnerability to enemy counteraction. As the action begins to demoralize the enemy and his forces begin to disintegrate under pressure, exploitation may develop into pursuit.

(d) Units which follow or support are initially employed to prevent the enemy from closing the gap in a penetration and to hold key terrain. As the exploiting force advances, these following and supporting units secure lines of communications, mop up bypassed pockets of resistance, expand the area of exploitation, and block the movement of enemy reinforcements into the area. Following and supporting units relieve elements of the exploiting force which have been left to block or contain enemy forces or to protect areas or installations.

(e) Following and supporting units must be capable of keeping up with exploiting forces. They may employ nuclear fires in the accomplishment of their missions. Close liaison is established between commanders of the following and supporting units and the exploiting force. Elements of the following and supporting units may be attached to the exploiting force.

f. Pursuit

(1) General.--It differs from the exploitation in that its primary function is to complete the destruction of the enemy force while it is in the process of disengagement, rather than prevent the enemy force from organizing a defensive position. While a terrain objective may be designated, the destruction of the enemy force itself is the primary objective. The pursuit usually consists of constant direct pressure applied on the retreating enemy. Either one or both of the below may be used.

(a) The mission of a direct pressure force is to prevent the enemy from disengaging and subsequently reconstituting the defense, and concurrently, to inflict maximum casualties. It does this by constant attacks, both day and night. The enemy is not allowed to break contact and is denied opportunities to reorganize or to reestablish a defense. Leading elements of the direct pressure force move rapidly along all available roads, containing or bypassing small enemy pockets of resistance which are reduced by following units. At every opportunity, the direct pressure force envelops to cut off and destroy enemy elements, provided such actions do not interfere with its primary mission.

(b) An enveloping force may be used to get in the rear of the enemy and block his escape so he will be destroyed between the direct pressure and enveloping forces. It advances along or flies over routes paralleling the enemy's line of retreat to reach defiles, communication centers, bridges, and other key terrain ahead of the enemy main force. Helicopterborne, armored, and mechanized units are particularly effective as encircling forces. If the encircling force cannot outdistance the enemy, it attacks the enemy main body on its flank.

(c) The division may conduct local pursuits or it may be designated as the direct pressure force, enveloping or turning force of a higher echelon in the pursuit.

(2) Basic Considerations

(a) A force in the exploitation is alert to indications of enemy collapse which enable pursuit. It makes prior preparations for pursuit including issuance of warning orders, regrouping of forces, and plans for logistics support. All possible means are used to maintain the continuity of the attack. When the enemy can no longer hold his positions and as he seeks to escape, the pursuit is launched. Prompt exploitation of nuclear fires may result in the launching of the pursuit during the initial assault.

(b) Successful pursuit requires unrelenting pressure against the enemy to prevent reorganization and preparation of defenses. This requires that troops and equipment be pushed to the limit of endurance. Commanders are located well forward in order to be certain that the impetus of advance is maintained. Greater risks may be justified to achieve decisive results.

(c) When the division conducts local pursuit operations, organization for combat provides a direct pressure force of sufficient size and composition to maintain continuous pressure. The encircling force must have mobility superior to that possessed by the enemy and it must be organized for semi-independent operations. In this connection, the enemy's inability to react effectively may reduce the need for mutual support. Engineer support is required by both forces to clear obstacles which may prevent advancing columns from moving rapidly. Adequate communication support is provided.

(d) Preparations are made for logistic support during the pursuit. Class III consumption can be expected to be particularly high. Transportation means include fixed-wing aircraft and helicopters which possess the capability for prompt delivery of supplies to forward units and for evacuation. Maximum use is made of captured enemy material, particularly transportation and stocks of supplies.

(e) Security is enhanced by the speed of advance, the enemy's inability to react effectively, and the dispersion of forces.

(3) Conduct of the Pursuit

(a) The pursuit is conducted on as broad a front as possible. Forces engaged in direct pressure and encircling maneuvers are given deep objectives with mission type orders. Minimum control is exercised over these elements. Maximum latitude is given subordinate commanders for exercise of their initiative. Decentralization of fire support and logistics support means is usually necessary.

(b) Direct pressure forces advance relentlessly while the encircling force cuts the enemy's lines of retreat. Double envelopment of the retreating main force or its elements is accomplished when conditions permit. Hostile rear guards or forces on flank positions are not permitted to divert the main force from its mission. Helicopterborne units are used to envelop enemy rear guards, expediting their destruction and speeding the movement of the force. If the enemy's main force establishes itself on a position from which it cannot be quickly dislodged, the commander immediately attacks. If the attempt to cut the enemy's escape routes fail, a new encircling force is immediately dispatched.

(c) Air support is very effective in pursuit operations. Reconnaissance aircraft keep commanders informed of locations and activities of enemy forces and close air support aircraft inflict maximum damage on the retreating enemy, concentrating on his lines of withdrawal, tactical formations, and reserves.

610. NIGHT ATTACK

a. General.--The principles and practices discussed below are applicable to night attacks. An attack made at night requires techniques that are different from those employed in a daylight attack. Normally, the planning is conducted at regimental level and coordinated at division level. In execution, however, a large-scale night attack is actually a series of small unit limited objective attacks.

b. Essentials of the Night Attack.--The following are the essentials of a successful night attack:

(1) Well-Trained Troops.--Troops should be fresh, trained in the techniques and psychological implications of the night attack.

(2) Effective Leadership.--As units must operate under abnormal conditions, sound and decisive leadership by small unit leaders is particularly important.

(3) Adequate Time for Daylight Reconnaissance.--Normally, several hours of daylight are required for regiments to plan and prepare for a night attack.

(4) Effective Control Measures.--Easily identified terrain features should be utilized to the maximum extent possible for maintenance

of control and direction. Additional measures include use of available infrared and other electronic devices and artificial illumination.

(5) Detailed, Simple Plans.--Plans must be simple, but must be in sufficient detail to minimize the chances of error or misunderstanding.

c. Considerations for Adoption of a Night Attack.--A night attack may be ordered to:

(1) Avoid heavy losses.

(2) Achieve surprise.

(3) Gain key terrain.

(4) Achieve a psychological advantage.

(5) Utilize concealment afforded by darkness.

(6) Compensate for inferiority in combat power.

(7) Maintain pressure against the enemy.

(8) Advance across extended open areas visible to the enemy.

d. Battlefield Illumination.--The attack may be nonilluminated intially in order to gain surprise, but illuminated after surprise is lost or when the enemy employs illumination. Illumination may be utilized in a night attack to:

(1) Aid in maintaining control and orientation of troops.

(2) Increase the rate of advance.

(3) Assist operations of reconnaissance elements.

(4) Facilitate the movement of tanks and displacement of artillery units.

(5) Silhouette an enemy position to be attacked from the flank.

(6) Identify deep objectives which are to be seized by helicopterborne or ground attack.

(7) Compensate for lack of time for adequate daylight reconnaissance.

(8) Permit diversionary activity.

e. Time of the Night Attack.--The time of attack at night is based on the purpose of the attack, except in a night beach landing where hydrography and tides may exert a dominant influence. Where the mission is to seize and hold a locality, the attack is launched early at night to allow maximum time for organization and consolidation of objectives before daylight. When the mission is to seize terrain to permit further attack during daylight, the time of attack is set as late as possible consistent with the time required to seize and reorganize the objective area during darkness.

f. Conduct of the Night Attack.--The fundamentals of offensive action discussed in paragraph 603 apply to the conduct of the night attack. In night attacks, rehearsals are conducted whenever possible. Separation between units and intervals between individuals are reduced for control.

g. Fire Support

(1) The determination to use preparatory fires and the effect on the scheme of maneuver must be weighed against the loss of surprise gained in an attack by stealth. When a preparation is not fired, on-call fires are planned for use if surprise is lost.

(2) The use of on-call nuclear or chemical fires is carefully considered because of the difficulty in providing effective warning. When on-call nuclear fires are used, normal troop safety warnings are augmented to ensure protection against loss of night vision.

611. LINKUP OPERATIONS

a. General

(1) A linkup operation entails the juncture of two ground units. Such a juncture may occur in an amphibious operation when there is both waterborne assault and a helicopterborne assault, an attack using a ground element and a helicopter landed element, or during the relief of an isolated unit.

(2) The initial phase of a linkup operation is conducted as a normal offensive operation. As linkup becomes imminent, coordination and control are intensified, placing definite restrictions on the forces involved.

b. Planning.--Planning for the linkup must be timely. Plans of the forces involved in the linkup are coordinated in advance. Provisions are made for the prompt exchange of information between the two forces. The following are planning considerations of linkup operations:

(1) Command relationships and responsibilities.

(2) Command and staff liaison.

(3) Coordination of schemes of maneuver.

(4) Fire coordination measures.

(5) Coordination of communication plans.

(6) Actions following linkup.

c. Command Relationships and Responsibilities.--The headquarters directing the linkup establishes the command relationships and responsibilities of the two forces. The linked-up force (hereafter called the stationary force) can be attached to the force making the linkup (hereafter called the linkup force), or the linkup force can be attached to the stationary force, or both forces can come under or remain under control of a higher commander.

d. Command and Staff Liaison.--Command and staff liaison between the two forces is essential. This liaison is initially established during the planning phase and is continued throughout the operation. As linkup becomes imminent, additional liaison personnel are exchanged to represent leading units and their supporting artillery. In the event that the operation entails linkup with Allied forces, provisions must be made for interpreters or liaison officers with linguistic ability.

e. Coordination of Schemes of Maneuver.--Control measures are carefully delineated. Linkup points are selected where physical contact between the two forces will occur. These points are mutually agreed upon and should be recognizable to both forces. They are located where the routes of advance of the linkup force intersect the security elements of the stationary force. Alternate linkup points are established. Enemy action may force linkup to occur at places other than those planned. The number of linkup points established depends upon the capability of the stationary force, the number of routes being used by the linkup force, and nature of terrain and enemy threats to the operation. Troops manning the points, as well as the units contacting them, must be familiar with procedures for mutual identification and plans for the rapid passage of the advancing units. Assistance by the stationary force includes removing obstacles, providing guides, and reserving assembly areas for the reorganization of linkup forces.

f. Fire Coordination Measures.--Fire coordination measures are established by headquarters directing the operation. Neither force will deliver fires across the restrictive fire line established without prior clearance by the other. As linkup become imminent, the RFL is moved as close to the stationary force as possible to allow maximum freedom of action to the linkup force. The fire support coordination line of the linkup force may be separate from the stationary force in the early stages. As linkup becomes imminent, a single FSCL encompasses both forces; airstrikes not controlled by a forward air controller in the area between the two forces must then be cleared by the linkup force and the stationary force. Upon linkup, and when recommended by the responsible commander concerned for fire support coordination, the FSCL is moved beyond the stationary force. The fire support coordination for the force as a whole must be clearly established; responsibility for such coordination is that of the designated commander, or of the force having primary interest in the operations following linkup. (See fig. 18.)

g. Coordination of Communication Plans.--The communication plans for the linkup operation include channels for radio communications between major units of the two forces. This requires an exchange of call signs, frequencies, and authentication procedures. Aircraft can be used to extend the range of communications or to deliver messages between the forces as linkup approaches. The communication plans also prescribe positive identification procedures for use during daylight and darkness. Pyrotechnics, colored smoke, and panels are used during daylight; and pyrotechnics, infrared devices, and flashing lights are used during darkness. Armbands, vehicle markings, arm-and-hand signals, and passwords are helpful.

h. Actions to be Taken Following Linkup

(1) Upon linkup with the stationary force, the linkup force may reinforce or assume the defense of the area, continue the attack in coordination with the stationary force, or pass through or around the stationary force and continue the attack to more distant objectives. Provisions are

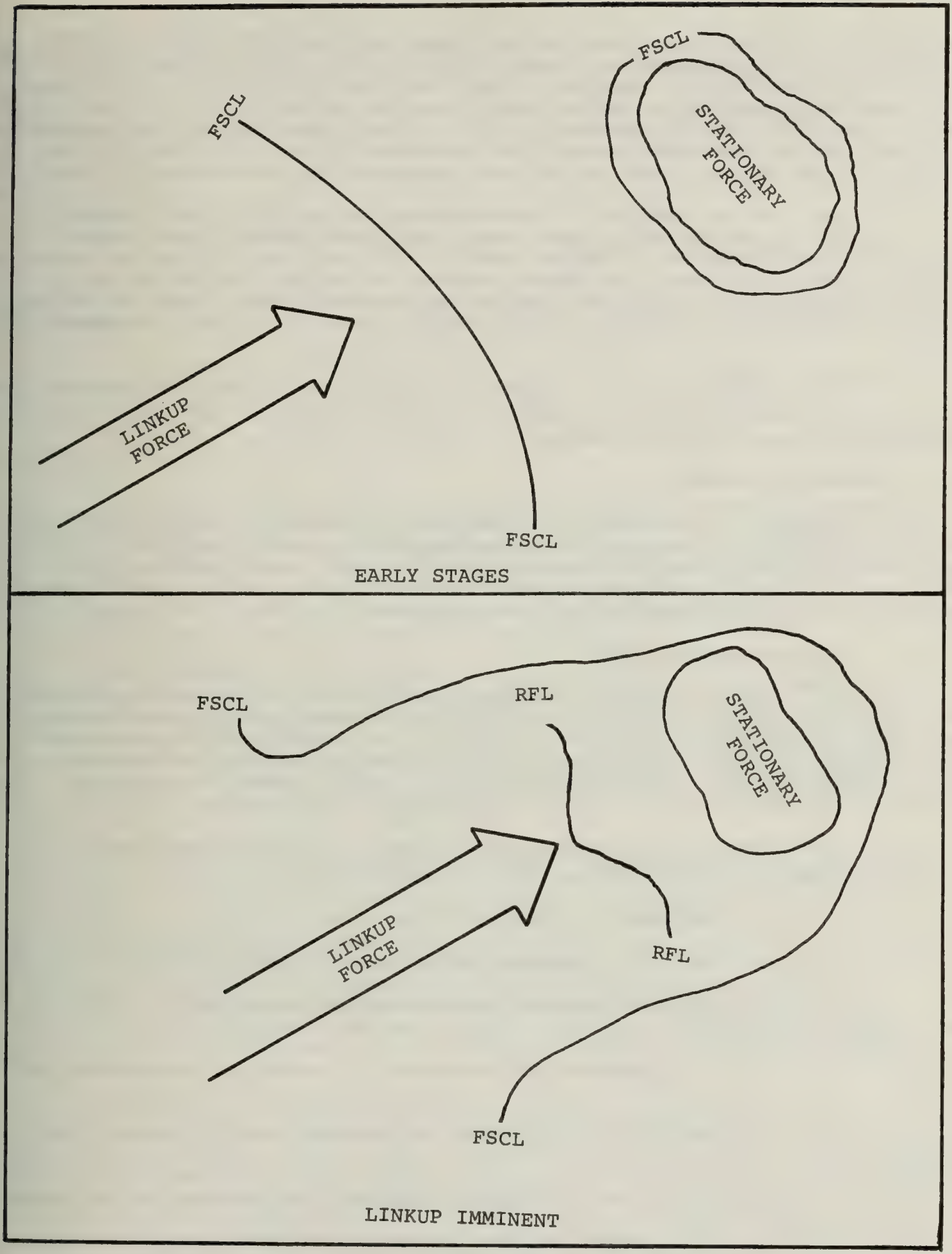


Figure 18.--Fire Coordination Measures in Linkup Operations.

made for relief in place or passage of lines as required. Since nuclear vulnerability is increased as linkup occurs, particularly during the period when the linkup force is passing through the stationary force, provisions for reducing the period of vulnerability or the density of troops and equipment in the area must be included in the plans. Therefore, it is desirable that the linkup force pass around the stationary force. Its objectives should be located well outside the area occupied by the stationary force.

(2) In the case of a linkup operation involving the breakout of an encircled force, the linkup force (the force breaking out) rapidly passes through the forward defense area of the stationary force to assembly areas in the rear. To speed passage and reduce the period of nuclear vulnerability, multiple routes are provided and suitable priority accorded elements of the linkup force during movement to their assembly areas.

(3) When two moving forces link up, normally only boundaries and fire coordination control measures are prescribed and the units continue on their assigned missions.

612. PASSAGE OF LINES

a. General.--A passage of lines is an operation in which a unit attacks through a unit which is in contact with the enemy. Elements of the unit passed through remain in position and support the attacking unit until their fires are masked, at which time they may remain in position, be withdrawn, or be committed to other action.

b. Planning Procedures

(1) Upon receipt of a warning order which directs an operation requiring a passage of lines, the division commander and his staff will make early contact with the unit in contact. Arrangements will be made to establish at least a division tactical command post in the vicinity of the command post of the unit in contact. This is done to initiate planning conferences to work out the details of the passage.

(2) During the planning conferences, the following details are coordinated by the commanders of the units involved:

(a) Exchange of intelligence.

(b) Review of tactical plans to include communication plans.

(c) Arrangements for reconnaissance by elements of the unit passing through.

(d) Arrangements for exchange of liaison personnel, at all levels.

(e) Measures to be taken to provide security during the passage.

(f) Selection of areas of passage and provisions for guides.

(g) Priorities for use of routes and provisions for movement control.

(h) The time or circumstances when responsibility for the area of operations will be transferred to the unit passing through.

(i) Extent of fire support and other combat support to be provided by the unit in contact.

(j) Extent of combat service support to be provided by the unit in contact.

(k) Communication support to be provided by the unit in contact.

(l) Exchange of information on friendly minefields and other obstacles.

(m) Measures to minimize vulnerability to mass destruction weapons.

(n) Tactical cover and deception plans to preserve secrecy and gain surprise.

(3) When possible, the areas selected for the actual passage of lines should be the unoccupied areas between elements of the unit in position or on its flanks. This procedure reduces the vulnerability that results when one unit passes directly through the occupied positions of another. Vulnerability also is reduced when the subordinate units of the division making the passage move directly to the areas of passage on into the attack without occupying forward assembly areas.

(4) The unit passing through must have priority for use of routes to and within the area of the unit in contact. Route priority should be established by the headquarters directing the passage of lines. Traffic control in the area of the unit in contact is the responsibility of that unit until the responsibility for the zone is transferred to the passing unit. The passing unit may augment the traffic control capability of the unit in contact during the time of passage.

(5) The time or circumstances when responsibility for the zone of action is transferred to the commander of the unit executing the passage of lines must be mutually agreed upon by the two commanders concerned, if not specified by higher authority. Normally, the commander of the unit making the passage of lines assumes responsibility for the zone of action at or prior to the time of attack. The responsibility for the zone may shift at the time of the firing of the preparatory fires or earlier at the direction of the headquarters ordering the passage. This transfer of responsibility requires that the commander making the passage assume operational control of those elements of the unit in contact at the time of the transfer.

(6) The unit in contact provides all possible aid to the unit passing through; e.g., the breaching of minefields, provision of guides, fire support, and other combat support within its capabilities. Normally, because of problems of control, only the indirect fire means of the unit in contact will be used to support the passing unit. After responsibility for the zone of action is transferred to the passing unit, the artillery commander of the passing unit coordinates the fires of the artillery of the unit which has been in contact. It is desirable to employ the artillery

of the unit making the passage to support the attack. However, if the attack is receiving nuclear support, it may not be necessary to increase troop density by deploying the artillery of the attacking unit in the forward area. In this case, the artillery of the unit in contact supports the attack initially, and the artillery of the attacking unit is placed in rear positions ready to move to forward firing positions to support the continuation of the attack.

(7) The unit in contact provides assistance to the attacking division in combat service support matters as follows:

(a) Evacuation of casualties and prisoners of war.

(b) Civilian control.

(c) Use of areas and facilities; e.g., water points.

(d) Route priority and traffic control.

c. Communications.--To preserve secrecy and ensure effective control during the critical stages of a passage of lines, special attention to communication planning is required.

(1) Communications of the unit passing through the line will be restricted as much as possible. Some circuits of the unit in contact will be made available for use by the attacking unit.

(2) Radio, to a limited extent, must be used for communications between the unit in contact and the attacking unit. Of special importance is the necessity for careful coordination of the procedures and frequencies to be used. Multichannel radio equipment of the attacking unit should not be employed until the passage is complete if security will be violated. It may be possible for the attacking unit to use the multichannel radio facilities of the unit in contact. The unit in contact should maintain a normal radio and multichannel radio traffic pattern.

(3) Wire communications of the unit in contact should remain unaffected and should be used by the attacking unit to the extent feasible. Use of messengers should be emphasized to reduce radio traffic between the units.

(4) Visual and sound communications are limited to prearranged identification signals. During the period of passage, it is especially important that all visual and sound signals have the same meaning to both the attacking unit and the unit in contact.

d. Conduct of the Passage of Lines

(1) Elements of the attacking division move preferably during periods of reduced visibility from rearward positions to attack at the scheduled time. Careful march calculations are made to ensure that the units attack at the correct time without the requirement for use of a forward assembly area. This procedure reduces to the minimum the time in which elements of two units are concentrated in the forward area.

(2) If the attack subsequent to the passage of lines is preceded by a nuclear or chemical preparation, it may be necessary, because

of different degrees of protection inherent in the attacking division and the unit in contact, to prescribe troop safety measures.

(3) In some situations, it may be desirable to displace the reserves of the unit in contact to rear assembly areas just prior to the beginning of the passage of lines. This procedure reduces troop density during the passage. If this procedure is used, it normally will be prescribed by the headquarters ordering the passage of lines.

613. RELIEF IN PLACE

a. Definition.--A relief in place is an operation in which all or part of a unit is replaced in a combat area by an incoming unit. The combat mission and area of operation responsibilities of the outgoing unit are assumed by the incoming unit. The relief in place is executed when the outgoing unit is on the defense. The incoming unit may have the mission of continuing the defense or preparing for a subsequent attack. In either case, the outgoing unit or elements thereof are withdrawn.

b. Planning Procedures

(1) General.--When the division relieves another unit in place, the warning order to the incoming division must specify, as a minimum, the time for commencing and completing the relief and the priorities for use of routes involved. The warning order normally will direct that the relief be carried out under cover of darkness or other conditions of reduced visibility. The order may direct the relief to be completed in one or more nights. Upon receipt of the warning order, the division commander and staff analyze the mission, issue internal warning orders, establish liaison, and visit the unit to be relieved. The division will establish its tactical command post in the vicinity of the main command post of the unit being relieved. Joint conferences are held between the commanders and staffs of the two units concerned to work out the details of the relief.

(2) Details to be Coordinated.--Procedures for the accomplishment of the following must be agreed upon:

(a) Exchange of plans and liaison personnel. The incoming unit commanders and staffs must be briefed and become thoroughly familiar with the existing defensive plans to include fire plans, barrier plans, and counterattack plans. To make the most efficient transfer of information concerning the plans, dispositions and area of operation, the outgoing unit leaves liaison personnel with the incoming unit. The number of these personnel and the duration of their stay with the incoming unit varies with the situation. Normally, they will remain with each combat and combat support headquarters of the incoming unit from company level up. These personnel usually remain until the incoming units become familiar with the situation.

(b) Sequence of relief (if not specified by the headquarters ordering the relief). To establish the strongest defense during relief, the relief in place is executed by stages, either rear to front or front to rear. In determining the sequence of the relief, both commanders should consider:

1 The subsequent mission of the division that is conducting the relief.

2 The strength and combat efficiency of the unit presently in the forward defense area.

3 The capability of the enemy to detect and react against the relief.

4 The characteristics of the area of operations.

5 The need to vary the pattern of relief.

6 Size and type of elements involved in the relief.

7 The requirement to retain secrecy.

(c) When "command is to pass." The time or circumstances under which the incoming unit commander will assume responsibility for the area must be clearly established. Until command passes, the outgoing unit commander retains responsibility for the area and mission and exercises operational control over all subordinate elements of the incoming unit which have completed their portion of the relief. During this period, the incoming units must fit into and accept the general defense plans of the outgoing unit. Normally, command passes to the incoming commander when the units in the forward defense area have been relieved by his subordinate units and when adequate communication means have been established. When command passes, the incoming commander assumes operational control of all units of the outgoing unit which have not been relieved.

(d) Reconnaissance. Arrangements must be made for a thorough daylight reconnaissance by commanders and staff officers of all echelons of the incoming unit. Reconnaissance should include an inspection of terrain to the front, defensive installations, relief routes, assembly areas, weapon positions, and combat service support installations.

(e) Security. Every effort must be made by all echelons of the incoming and the outgoing units to prevent the enemy from learning that a relief is taking place. In addition to conducting the relief during periods of reduced visibility, the following security measures should be taken:

1 Every form of normal activity in the area of operations must be maintained during the relief. The incoming unit should assume the normal pattern of harassing and interdicting fires, patrols, communication traffic, and movement previously employed by the outgoing unit.

2 Restrictions on the size of advance parties and reconnaissance parties must be enforced. These parties should move to the area of operations by infiltration.

3 Aerial reconnaissance by members of the incoming unit should be made in aircraft of the outgoing unit.

4 Radio nets of the incoming unit should not be used in the new area until after the relief is complete.

5 Registration of fires of the incoming unit should be coordinated by the outgoing unit until command passes.

6 An integrated tactical cover and deception plan should be executed by both the incoming and outgoing units.

(f) Movement control. Arrangements between the incoming and outgoing units must be made for the control of units moving into and out of the area. Coordination must include:

1 Routes to be used and priorities for their use.

2 Responsibility for traffic control.

3 Location of assembly areas.

4 Provision of guides for incoming units.

5 Common use of transportation.

(g) Intelligence. The outgoing unit transfers to the incoming unit all information and intelligence concerning the enemy and the area of operations, and detailed information related to any emplaced sensor/surveillance systems which remain active. All additional information required for the incoming unit to maintain continuity in the intelligence collection effort should be provided by the outgoing unit.

(h) Fire support.

1 The method of relieving fire support units must be clearly established. Normally, the artillery of the outgoing unit will remain in position until the units in the forward defense area have been relieved. By using this procedure, artillery units which are familiar with the fire support plans and the area of operations are in position to fire during the critical periods of the relief of forward units.

2 If sufficient firing positions are available, the incoming artillery may elect not to take over the outgoing artillery's firing position, but may select new positions from which the same fire missions can be accomplished. In this case, the incoming artillery moves into position by battery under battalion control. The incoming artillery is prepared to take over fire missions before the outgoing batteries are withdrawn.

3 When the lack of firing positions so dictates, artillery may be relieved in place. In this case, it may be necessary to relieve by platoon or section to avoid congestion and to maintain continuous fire support.

4 When the relief is to be conducted over a period of more than one night, the incoming artillery normally will move at least one gun per battery forward the first night to secure registration data. In any case, liaison officers and forward observers of the incoming unit join the outgoing units as soon as possible to become familiar with the existing fire plans.

5 Until command passes, registration and all other fires of the incoming artillery units are controlled by the commander of the outgoing artillery.

6 The headquarters ordering the relief may direct that the artillery of the outgoing unit remain in position to support subsequent operations of the incoming unit. In this case, careful coordination of position areas must be made in order to reduce vulnerability.

(i) Exchange of equipment. The time available for and other circumstances influencing the relief may require that certain weapons and other equipment be exchanged between the incoming and the outgoing units. The extent of such exchange should be authorized by the headquarters ordering the relief.

(j) Combat service support. Pertinent combat service support matters such as the transfer of supplies, use of installations, transfer of prisoners of war, operation of civilian collecting points, displacement of combat service support units, use of transportation, and traffic control must be coordinated between the incoming and outgoing units.

(3) Concurrent Planning.--The unit executing the relief and the unit being relieved will issue operation orders directing the conduct of the relief in accordance with procedures agreed upon at the planning conference. Prior to the issuance of the operation orders, fragmentary orders are disseminated to subordinate units to allow concurrent planning by these units.

c. Communications.--Comprehensive communication planning is essential if secrecy is to be preserved. Both the incoming and outgoing divisions institute special communication measures to prevent the enemy from discovering any change in the tactical situation. This planning must be conducted jointly by the incoming and outgoing divisions and will comprise a major portion of any deception plan.

(1) The communication facilities of the outgoing division must remain in place until after the passage of command, and should continue in operation until taken over by the incoming division or until the need for the facility ceases to exist. The incoming unit should take over the facilities of the outgoing unit, especially wire circuits. Exchange of equipment may be effected.

(2) Radio nets of the outgoing division must continue in operation with normal traffic patterns until the relief is complete, and may continue to be operated for a limited time thereafter by the incoming division, as a deception measure. Radio nets of the incoming division should not be used in the new area until the relief is complete. Communication planning must provide for the use of call signs, frequencies, codes, and ciphers of the outgoing unit during the period of relief. Liaison personnel and advance parties of the incoming division operate on the nets of the outgoing division to preserve secrecy. Multichannel radio employment for a relief in place is governed by the same principles as for a passage of lines.

(3) Messenger service will be established by the incoming division early in the relief period and will be operated on a joint schedule serving both incoming and outgoing divisions.

(4) The wire circuits and switching facilities of the outgoing division will be taken over by the incoming division, subject to limitations on exchange of equipment. Traffic diagrams, circuit diagrams, and line

route maps must be accurate and up-to-date, and must be provided to the incoming division prior to relief.

(5) As in a passage of lines, it is essential that visual and sound signals have the same meaning to all elements of both the incoming and outgoing division.

d. Conduct of the Relief in Place

(1) Two primary factors determine the method by which a relief in place is conducted. These factors are the sequence of the relief and whether the relief is to be conducted in one or more than one night. Within the scheme dictated by these factors, the relief in place is a series of relief operations conducted by subordinate units and controlled by the division. After detailed divisional planning, execution is decentralized.

(2) Once the relief in place is begun, the division staffs are primarily concerned with:

(a) Supervising the timing and movement of subordinate units.

(b) Coordinating joint use of transportation between incoming and outgoing units.

(c) Supervising the execution of traffic control.

(d) Preparing for exchange of overall control after "command passes."

(e) Staying abreast of the situation so that they can react swiftly to any emergency or required change in the plan for relief.

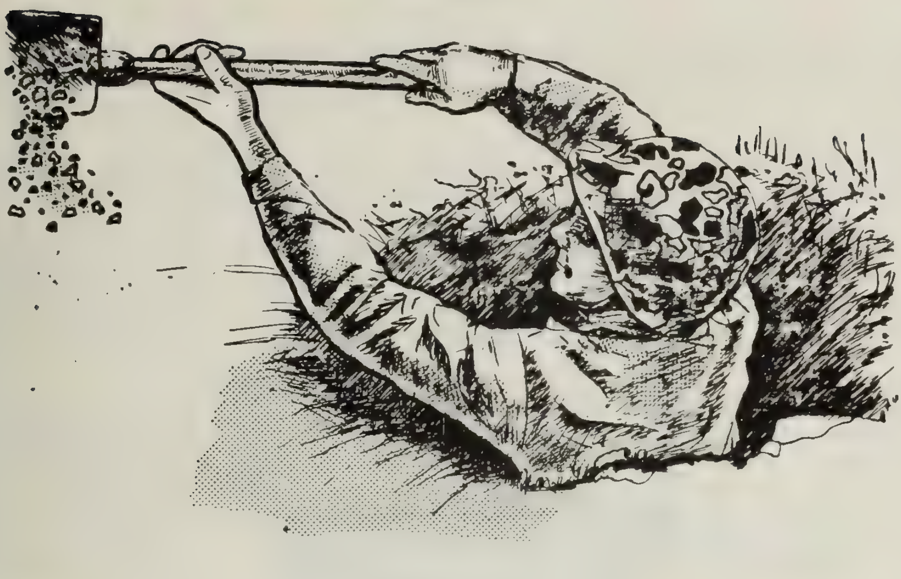
e. Nuclear, Biological, and Chemical Considerations.--During the execution of the relief, the physical presence of two elements in an area where only one normally is positioned inherently increases the vulnerability to nuclear, biological, and chemical attack. Therefore, the planning and conduct of the relief must be made with an appreciation of the risks involved. Careful scheduling of the reliefs executed by subordinate units must be accomplished to reduce to the minimum the troop density in the area of operations. Generally, if the relief is conducted over an extended period of time, vulnerability to nuclear, biological, and chemical attack can be reduced. However, the possibility of enemy detection and reaction against the relief are increased. The threat of nuclear, biological, and chemical attack emphasizes the requirement for secrecy to avoid detection and the necessity for thorough planning to limit the number and duration of profitable nuclear, biological, and chemical targets. It also points out the need for early and preplanned tactical cover and deception measures.

614. RIVERINE WARFARE

Doctrine for riverine operations stems from the nature of the environment and its effect on techniques normally employed by the landing force. Sharply contrasting riverine environments are found throughout the world and their impact on landing force techniques varies from negligible to significant. Consequently, a thorough knowledge and appreciation of the general and physical environment assumes vital importance in planning and conducting riverine operations. FMFM 8-4, Doctrine for Navy/Marine Corps Joint Riverine Operations, and JCS Pub 16, Doctrine for Joint Riverine Operations, contain the guiding principles, tactics, and techniques for this type operation.

615. COUNTERINSURGENCY OPERATIONS

The Marine division is capable of conducting counterinsurgency operations at each level of insurgent activity. FMFM 8-2, Counterinsurgency Operations, presents the doctrine, tactics, and techniques used by Marine Corps landing forces in counterinsurgency operations, including counterguerrilla operations.



SECTION 7

DEFENSIVE OPERATIONS

701. GENERAL

a. Defensive combat is, in itself, not decisive; it is the very antithesis of the amphibious operation for which the Marine division is organized.

b. Defensive operations are those actions taken for the purpose of developing more favorable conditions for subsequent offensive operations, economizing forces in one area to apply decisive force elsewhere, destroying or trapping a hostile force, denying an enemy entrance to an area, or reducing enemy capability with minimum losses to friendly forces.

702. DEFENSE OF ADVANCED NAVAL BASES

The defense of advanced naval bases is a responsibility of the Marine Corps. This task may be assigned to the division as a primary mission or as a corollary to an amphibious assault. In any event, the principles governing the defense of an advanced naval base are the same as those related to other forms of defensive combat. The essential techniques employed involve a series of progressive actions aimed at the preservation of the operating integrity of the base area or its denial to the enemy for the maximum possible time, by defeat or destruction of the attackers. Under any circumstances, the denial of the vital base installation to the enemy must be ensured. For more detail, see FMFM 8-3, Advanced Naval Base Defense.

703. CONCEPT OF DEFENSE

In the defense, the defender takes every opportunity to seize the initiative and to destroy the enemy. The defender seizes the initiative by selecting the battle area, forcing the enemy to react in conformity with the defensive plan, exploiting enemy weaknesses and errors by offensive operations, and counterattacking enemy successes.

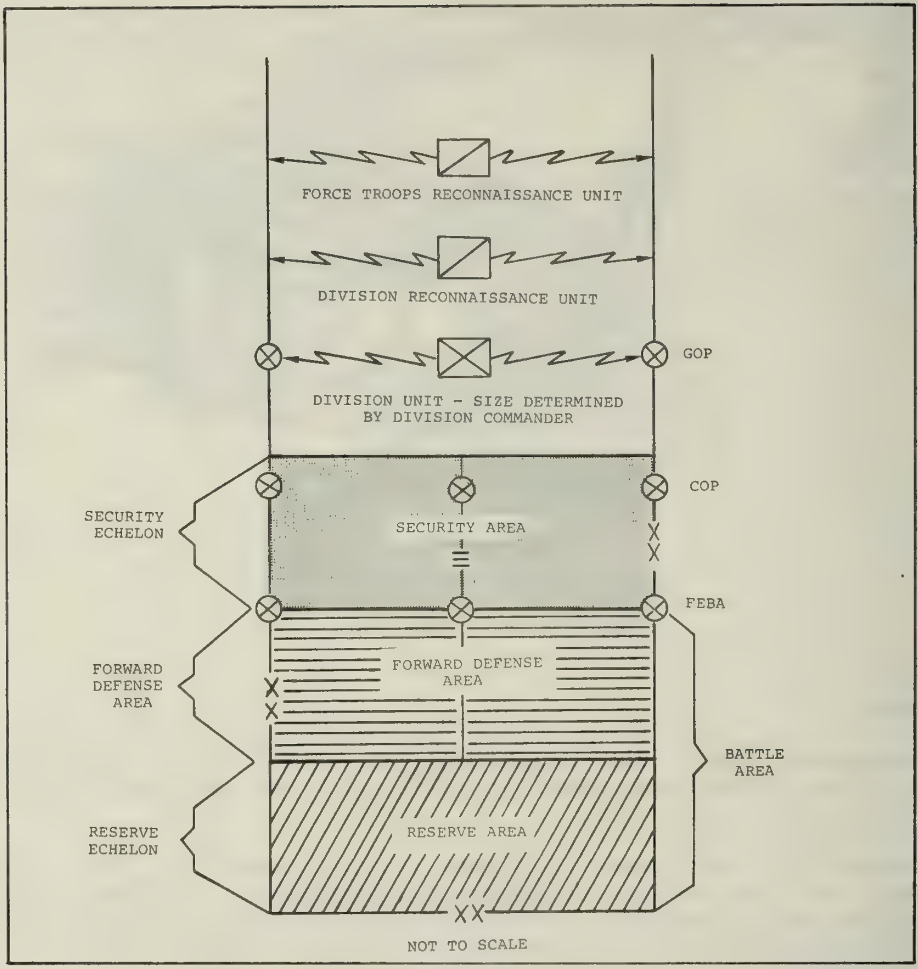


Figure 19.--Defensive Areas.

a. Defensive Areas.--Defensive areas include the security area, the forward defense area, and the reserve area. Each of these areas is allocated forces and fires as a part of the overall defense plan. (See fig. 19.)

(1) Security Area.--The division security area begins at the forward edge of the battle area (FEBA) and extends as far to the front and the flanks as division security elements are employed. Forces in the security area furnish information of the enemy; delay, deceive, and disrupt him as much as possible; and provide a counterreconnaissance screen. The security echelon also may have the mission of locating and developing nuclear targets. Forces operating in the security area may include elements from higher echelons, such as covering forces and units to provide aerial surveillance and flank security. Division forces in the security area will consist of the general outpost (GOP), combat outposts, flank security forces, division aerial surveillance elements, and patrols.

(2) Forward Defense Area (FDA).--The forward defense area extends rearward from the FEBA to the rear boundaries of the subordinate

elements which that command is employing as its forward defense echelon. The composition of the forward defense echelon depends upon the form of defense employed.

(3) Reserve Area.--The reserve area extends from the rear boundary of the forward defense echelon (forces) to the rear boundary of the command conducting the defense. This area is also referred to as the division rear area. The reserve forces and those uncommitted forces under division control occupy positions in the division reserve area and add depth to the defensive position. The reserve is the principal means by which the commander influences the defensive battle and regains the initiative.

b. Sequence of Defensive Action.--Overall defensive doctrine conceives the defense to take the form of a series of progressive actions designed to accomplish the mission of the defending force. These actions are taken progressively as the enemy prepares to attack, as he advances to contact, and after contact is made. Local offensive action is emphasized at all times, and the defender utilizes every opportunity to destroy the attacker.

(1) Action as the Enemy Prepares to Attack.--Action at this time emphasizes the location of enemy forces by reconnaissance forces, their destruction by support aircraft and long-range fires, and where circumstances permit, the launching of limited objective attacks to prevent the enemy from coordinating his attack.

(2) Action as the Enemy Advances to Contact.--The action described in subparagraph (1) above continues; however, the denial or holding of key terrain in front of the battle area acquires increased importance.

(3) Action During Contact.--Action during this period emphasizes holding, denying, or the yielding of terrain in order to canalize enemy forces. These actions, coupled with the counteroffensive, are taken whenever opportunity is presented to destroy enemy forces.

(4) Transition to the Counteroffensive.--The enemy's attack may result in placing his forces in such an unfavorable position that the advantage passes to the defender. The defender then has the opportunity of gaining the initiative through a counteroffensive aimed at the destruction of the attacker. The counteroffensive is conducted as an offensive operation. (See sec. 6.)

704. FUNDAMENTALS OF DEFENSE

Effective defensive action by the Marine division is achieved by a coordinated application of the principles listed below. The degree to which each principle applies will vary with the mission and the situation and can be determined only after consideration of all the principles.

a. Maximum Use of Offensive Action.--In the defense, the division takes every opportunity to regain the initiative and to destroy enemy forces. The division must be prepared to take offensive action whenever the opportunity presents itself. The counterattack, or a spoiling attack, is often the key to success in the defense. A spoiling attack can keep the enemy off balance and prevent his massing forces, thus permitting the defender to accomplish his mission.

b. Proper Use of Terrain.--Terrain is a major factor in selecting the defensive area and disposing defending forces. The defender retains control of terrain features essential to observation, communications, and maneuver of reserves; he denies the enemy the use of terrain that might jeopardize the success of the defense. The defender uses field fortifications and obstacles to increase the natural strength of the area. Chemical agents which remain effective for long periods may be integrated into these obstacles. Obstacles can divert the enemy into areas suitable for counterattack or destruction by nuclear or chemical munitions. Obstacles in the area strongly influence the general defensive scheme, including the disposition of forces and the positioning of reserves. The defender should visualize all possible enemy avenues of approach into the area. An evaluation of the avenues of approach in conjunction with key terrain features serves as the basis for positioning forces as well as for using surveillance means and for planning fire support. Normally, avenues of approach at division level are those that will accommodate, as a minimum, a deployed enemy regiment at least two battalions abreast. The area selected for defense should afford good observation, fields of fire, and adequate cover and concealment to the defending forces. The defender applies the principles of camouflage and continuously improves camouflage throughout the defensive operation.

c. Security.--Security consists of those measures which prevent surprise, avoid annoyance, preserve freedom of action, and deny to the enemy information about our forces. Advantages which naturally fall to the attacker are countered by gaining information as to the time, place, plan, direction, strength, and composition of the enemy attack; deceiving the enemy as to the area in which the battle is to be fought; and finally, by canalizing, delaying, and disorganizing the attacking force.

d. Mutual Support.--Mutual support is desirable in order to gain a high degree of cohesion within the main battle area and to prevent defeat in detail. However, conditions created by wide unit separation increase the problem of achieving mutual support. Support of adjacent units by fire can be precluded by distances which exceed the ranges of organic weapons. Gaps between units can be partially offset by active patrolling, observation, provision for rapid movement of unit reserves, and proper employment of supporting weapons. Criteria regarding frontages, depths, and similar factors are altered either by the threat of enemy employment of nuclear weapons or by the mobility afforded the defender by the use of helicopters.

e. All-Round Defense.--The possibility of multidirection enemy attacks, including helicopterborne or airborne attack, increases the importance of this principle. The division must be prepared to defend against an attack from any direction. Application of the principle is best achieved by early warning and by providing for the rapid shifting of combat means to counter a developing attack. Defense against helicopterborne or airborne attack is enhanced by the early warning capability provided by air defense elements of the Marine aircraft wing.

f. Defense in Depth.--Maximum defense in depth is required in order to absorb an enemy attack within the battle area, and to provide for the relatively uninterrupted movement of the counterattacking force. The requirement for depth is increased when the enemy is superior in mobility or has the capability of destroying or rupturing defensive positions by the employment of nuclear weapons. Organized positions in depth must control key terrain, block avenues of approach, reduce the defender's vulnerability to nuclear weapons, and assist the maneuver of the reserve. The capability of the division to quickly dispose itself in depth before an attack from any direction is enhanced greatly by the use of helicopters.

g. Coordinated Fire Plan.--Coordination of the fires of all weapons organic to and supporting the division, including naval gunfire and supporting aviation, are planned and provided for in the defense order. Plans should provide for bringing the enemy under attack at the maximum range of air and missile units supporting the division, increasing the volume of fire as the enemy approaches, breaking up the assault immediately in front of the battle area, and destroying penetrations within the battle area. When employed, nuclear fires dominate the fire support plan and should be prearranged to cover all areas of probable concentration of enemy forces. Conventional fires supplement the effects of nuclear fires and also are utilized to engage targets that, due to economy or troop safety considerations, are not appropriate for nuclear weapons.

h. Coordinated Barrier Plan.--The natural features of the terrain are supplemented by the effective use of planned barrier systems including minefields and other artificial obstacles. Natural obstacles must be exploited. The creation or exploitation of barriers must be coordinated at all echelons of command. Counterattack plans are prepared to ensure the effectiveness of the barrier system. As a practical matter, it must be recognized that the Marine division is not constituted for the widespread construction of elaborate defensive works. Limitations in this regard are balanced by employing the mobility of division units and utilizing their capability for immediate response by helicopter.

i. Flexibility.--The organizational flexibility inherent in the Marine division is exploited to its maximum degree by provision for rapid shifting of combat power at a decisive time and place. The selection and preparation of alternate and supplementary positions, centralized control of supporting weapons, and availability of varied types of transportation increase the attainment of flexible response.

j. Unit Separation.--Separation (as a principle) must be considered concurrently with the requirement to gain maximum mutual support, maximum security, and minimum vulnerability of units to the effects of enemy nuclear weapons. Separation must be adequate to prevent prohibitive loss due to the effects of a single nuclear weapon, yet not so great as to risk defeat in detail or otherwise interfere with the accomplishment of the mission. In terms of defensive action, the degree of separation will be influenced primarily by the mission and by the following:

(1) Terrain.

(2) Friendly and enemy air situation.

(3) Mobility of opposing forces.

(4) Enemy nuclear capability.

(5) Responsiveness of friendly nuclear and conventional fire support.

k. Use of Time Available.--Since the defender can examine the terrain in detail and plan its best use, he makes every effort to prepare the defense in advance. The time available for planning and preparing for the defense will influence the employment of forces, preparation of obstacles, coordination of fires, and priority for performance of tasks. The effectiveness of the defense depends not only on the time available for its planning and preparation, but also on its advantageous use during the preparation phase. This fundamental also applies after the preparation phase because improvement continues during the defense.

705. PLANNING SEQUENCE

a. General.--As plans are developed for the amphibious operation, early consideration is given to the defense of the beachhead, and in normal land warfare, the same sequence is followed. The following is a logical planning sequence:

b. Organization of the Terrain

(1) Determine the Terrain Which Must be Held or Denied.--Ordinarily, the mission assigned to the landing force indicates those areas or installations which must be seized and defended. In the event that this specific information is not contained in the initiating directive, the mission must be analyzed with a view of determining those installations or areas which must be denied the enemy in order to accomplish the mission. The commander then must determine what terrain must be held or denied the enemy in order to ensure the integrity of those installations or areas.

(2) Force Requirements.--Upon determination of the terrain to be held or denied, the commander must next determine the forces required to hold or control this terrain. Normally, this is accomplished by visualizing all sectors of defense assigned to battalions. In deciding the areas to be assigned, the commander must ensure that sufficient combat power is allocated to accomplish the mission.

c. Assignment of Sectors of Defense.--After the division commander determines and appraises the broad defensive mission of his command, he must visualize how this mission is to be accomplished. For defense of advanced naval bases, this will include a determination of the vital area. By judicious application of the principles of defense and a careful analysis of the terrain, the division commander visualizes sectors of defense to be assigned down to and including battalions. However, his defense order normally assigns sectors of defense to regiments only.

d. Control Measures

(1) Control measures used in defensive operations include boundaries, coordinating points, fire control measures, blocking positions, and designated assembly areas.

(2) Coordinating points are established to designate the forward edge of the battle area. When the commander cannot define the forward edge of the battle area by a terrain feature, he may show it on the map or overlay as a dashed line connecting coordinating points and representing the general trace of the forward edge of the battle area. He should locate the forward edge of the battle area to take advantage of natural obstacles in the area and along a suitable barrier, such as a river line, if one is available.

(3) The division commander designates boundaries to define terrain responsibility for major subordinate units. He extends lateral boundaries forward to the range of direct support fires or limits of ground observation, whichever is greater, and to indicate the foremost limit of territorial responsibility. The rearward extension of the lateral boundaries between forward defense forces defines the depth of responsibility of each forward defense area commander. This extension must provide sufficient area to permit adequate maneuver and dispersion of the forward defense forces. Commanders may designate a rear boundary to clearly establish responsibility for specific terrain. Lateral boundaries also serve as a fire control measure. When possible, the commander locates boundaries between major subordinate units to prevent dividing responsibility for key terrain features and major avenues of approach.

(4) The commander designates coordinating points on boundaries as specific points for coordination of fires and maneuver between adjacent units. He indicates coordinating points whenever a boundary crosses the forward edge of the battle area and the trace of the security force.

(5) The division controls the general location of the reserve by designating assembly areas or blocking positions that are to be occupied by elements of the reserve.

e. Barrier Requirement.--In conjunction with the determination of force requirements, the commander must plan for the installation of barriers which assist in the defense of desired areas, or in canalizing the enemy into the killing zone.

f. Surveillance and Fires.--Plans must be made for the acquisition of long-range targets and for delivery of fires on these targets.

g. Spoiling Attacks.--One of the primary considerations of defense is timely offensive action. The commander must plan continually for the employment of his forces in an offensive spoiling role of disrupting, disorganizing, and delaying enemy attacks, especially while the enemy is still making preparations to launch his attack.

h. Fire Support Planning.--Plans for fire support must be formulated and integrated into the overall plan for the defense. The plan of supporting fires must be developed concurrently with counterattack and barrier plans. Flexibility must be maintained to ensure provision of adequate fire support for each element of the defensive force at the proper time and place as the enemy attack develops.

i. Counterattack Planning.--Counterattack plans for each likely enemy penetration along the most probable enemy avenues of approach into the defensive sector are prepared concurrently with fire support and barrier plans. Provisions are made for mobility of the counterattack force.

706. SUPPORTING ARMS PLANNING

a. General.--Defensive fire support plans are normally more complete than offensive fire support plans. There is usually more time available for their preparation and are based upon terrain and probable developments rather than known and suspected enemy dispositions. The planning sequence is the same as for offensive fire planning. However, the nature of the defensive situation and normally the time available for planning will permit the successive consolidation, review, and expansion of all subordinate plans at each succeeding higher echelon. Thus the final complete plan is submitted to and approved by the division. A major difference between offensive and defensive fire plans is that a portion of the offensive fire plan is prearranged as to both location and time, whereas the defensive fires are prearranged as to location and are fired at the time they are required (on-call fires).

b. Phases of Defensive Fires.--Fires in support of defensive operations fall into the following general categories: fires before the enemy forms for the attack, counterpreparation, fires during the enemy attack, and fires in support of the counterattack. In the conduct of a mobile defense, planning is further refined to permit an enemy to penetrate into a preselected portion of the forward defense area for destruction either by fires alone (including nuclear fires when authorized) or, if necessary, by fires in conjunction with counterattack.

c. Preparation of the Fire Plan.--The division fire support coordinator prepares the fire support plan based on the plans and requests of subordinate units and on the commander's guidance. Before the enemy forms for the attack, in general, long-range fires are allocated to air, naval gunfire, and heavy artillery. In the counterpreparation and fires to disrupt the attack, all three supporting arms participate. As the enemy closes with the defending forces and effects penetrations, artillery assumes the dominant role. Insofar as possible, fire support should be assigned to the artillery when the time of execution is critical or troop safety is a major consideration. As in offensive operations, it is of the utmost importance that the complete coordinated fire plan be disseminated to all units in sufficient time to permit units to utilize it.

707. ANTIMECHANIZED DEFENSE

a. Principles.--Division antimechanized defense is based upon an adequate warning system and coordinated use of active and passive measures to delay and repel an armored attack prior to its reaching the battle area. The antimechanized defense plan must provide for the destruction of individual armored vehicles and accompanying infantry in the event a penetration is made within the battle area. Antimechanized planning must provide for:

(1) Continuing reconnaissance and warning of enemy armor movements and locations.

(2) Conservation of antimechanized means.

(3) Assignment of specific missions for antimechanized weapons.

(4) Concentration of antimechanized means at critical points.

(5) Organization of antimechanized defense in depth.

(6) Coordination of all antimechanized means.

(7) For the above considerations to be fully effective, there must be a continuing evaluation of the enemy mechanized capability. The antitank weapons organic and available to division units provide depth to the defense by the very nature of their apportionment--the antitank weapons in the rifle companies, in the infantry battalions, and the tank battalion.

b. Antimechanized Barriers.--The division is capable of furnishing plans, technical advice, and equipment for the purpose of erecting barriers in the implementation of antimechanized plans. The division commander must ensure that such plans are coordinated within the overall antimechanized plan.

c. Artillery and Naval Gunfire.--The effectiveness of artillery and naval gunfire against enemy armor is limited by the fact that a direct hit or very near miss with a heavy caliber gun is required to immobilize armor. However, concentrations of fire on areas where the armor is canalized or slowed by barriers will cause the armor to operate with turrets closed and thereby reduce its visibility and mobility. This type of fire is also highly effective against enemy infantry participating in the armored attack. Naval guns are particularly suited for attack on armor operating along a coast or when visible from fire support ships due to their high muzzle velocity, heavy projectile, and fire control systems.

d. Air Support.--Air attack is one of the most effective means of combating enemy armor. During defensive operations, antimechanized air missions are performed against hostile mechanized forces and are capable of intervention in the objective area. Aircraft assist in antimechanized defense by performing reconnaissance missions and by conducting attacks against hostile mechanized forces.

708. SECURITY FORCES

a. General

(1) Security forces consist of aviation, reconnaissance forces, general outpost, combat outpost, and local security. The initiation of defensive operations as far forward as possible is always desirable. The mission, forces, means available, and the enemy situation determine the security echelons to be employed.

(2) Security forces are assigned to:

(a) Provide early warning and information about the enemy.

(b) Delay the enemy and gain time for the main defensive force.

(c) Deceive the enemy and force his early deployment.

(d) Disrupt and canalize the enemy advance.

(e) Provide security of rear areas.

(3) The division commander usually employs the maximum combat power that he can afford in the security force role. The maneuver elements of the division security force should be provided with the following:

(a) A high degree of mobility.

(b) Unity of command and control facilities.

(c) Target acquisition capabilities.

(d) Immediately responsive fire support, both nuclear and conventional.

(e) Antitank and antimechanized capabilities.

(f) Appropriate logistics support.

(4) When a defensive posture must be assumed during a period of close contact with an enemy force, the utilization of all the security echelons enumerated above is not always feasible. As a minimum, local security is established under all conditions and additional security measures are instituted as the situation permits. Following seizure of a force beachhead, local security, combat outposts, and reconnaissance forces operating in and over enemy-held territory are the security elements usually established.

b. Aviation.--Aviation provides long-range visual and photographic surveillance and electronic warfare support measures, and operates in conjunction with ground security forces. Fixed-wing observation aircraft and helicopters support the conduct of reconnaissance missions and assist in the adjustment of fires on ground targets. Close support aviation conducts its normal fire support missions.

c. Reconnaissance Forces.--Reconnaissance forces are employed as much as possible to provide surveillance within and beyond the beachhead.

(1) Mission.--The mission of the reconnaissance forces emphasizes long-range detection of the enemy and, under some circumstances, control and adjustment of long-range fires.

(2) Composition.--Division reconnaissance battalions and the force troops reconnaissance companies are specifically organized, trained, and equipped for accomplishment of reconnaissance missions associated primarily with amphibious operations. These units are supplemented by ground and air units, as necessary to fulfill the surveillance responsibilities and other requirements of the landing force.

(3) Employment

(a) Division reconnaissance forces operate in that portion of the division sector of defense in which the division commander retains the responsibility for acquisition and attack of targets. This is normally forward of the general outpost or security echelons established by the forward forces. (See fig. 19.) It may, however, include exposed flanks and rear areas not included in the sectors of subordinate units.

(b) Fleet Marine Force reconnaissance forces, either assigned to the division or as elements of a larger force, are employed forward of the division sector of defense to the maximum depth commensurate with the capability to control and support those forces. They normally operate forward of the division reconnaissance battalion.

(4) Conduct.--Reconnaissance forces conduct aerial and ground reconnaissance and establish observation and listening posts on major avenues of approach into the defensive area. Deep reconnaissance units, both force troops and division, are established, supplied, shifted, and recovered by air. For this purpose, both fixed- and rotary-wing aircraft

are used. Such forces can provide the division commander with information about enemy activity a considerable distance inland and can direct fires on such activity. Reconnaissance forces may assist in the conduct of delaying or canalizing action; however, neither division nor force troops reconnaissance units possess the requisite combat power for close combat and are, therefore, withdrawn prior to becoming decisively engaged.

d. General Outpost.--The Marine amphibious force commander prescribes the general location of the division general outpost to coordinate security measures across the MAF front. If the division is operating alone, the general location of the division general outpost is made by the division commander.

(1) Mission.--The principal task of the general outpost is to gain time for the preparation of the division defensive position and otherwise prepare for combat. It induces the early deployment of the enemy and attempts to deceive him as to the strength and location of the main defensive force. The GOP covers the withdrawal of the division reconnaissance battalion and continues the task of providing early warning and intelligence information about the enemy.

(2) Composition.--The GOP is normally provided from the division reserve. It may consist of a regiment, less elements required as division reserve. It should be highly mobile for rapid movement to the front and all available means including helicopters are utilized to achieve this mobility. Fire support of the GOP is provided by air, artillery attached or positioned forward of the FEBA, and by other weapons attached or in support.

(3) Employment.--The GOP is employed by the division forward of the combat outpost. Its establishment and location are influenced by enemy strength forward of the FEBA. It should be located on terrain that affords long-range observation and fields of fire and denies the enemy ground observation of the battle area. It should take advantage of natural obstacles that tend to delay or assist in canalizing the enemy into avenues of approach favorable to the defender.

(4) Conduct.--The GOP accomplishes its mission by providing security for the division by observation, reconnaissance, attack or defense, or any combination of these methods.

e. Combat Outpost (COP).--The division commander prescribes the general location of combat outposts to the extent necessary to ensure the provisions of security across the division front.

(1) Mission.--The COP is the security echelon which provides final warning of direction and strength of the enemy's attack.

(2) Composition.--The COP is established and provided for by the forward regiments from forces constituting the forward battalions. The strength of the COP may vary from a rifle platoon to a reinforced rifle company depending on the mission assigned.

(3) Employment.--The COP is controlled by the regimental commander or major subordinate unit assigned a sector in the forward defense area. The regimental commander may establish the combat outpost by employing elements of the regimental reserve or by directing the forward battalions to furnish appropriate elements.

(4) Conduct.--The COP accomplishes its mission by observation, active patrolling, fires, and by the control of air support and of supporting fires from within the battle area. The COP avoids decisive engagement with the enemy.

f. Local Security

(1) Mission.--Local security adds depth to the security of the main battle area, maintains contact with the COP, and after withdrawal of the COP, maintains contact with enemy forces. This security echelon is particularly important at night and during periods of limited visibility in preventing surprise and infiltration of unit defensive positions.

(2) Composition.--This security echelon consists primarily of foot patrols established by the forward companies. It may vary in size from two-man observation posts to fire team and reinforced rifle squad or larger patrols. Depending on the mission, terrain, and the enemy situation, local security forces may be motorized or provided helicopter support for the accomplishment of their tasks.

(3) Employment.--Local security is employed by all units of the division and is the minimum security measure established under all conditions of defensive operations. Combat, combat support, and combat service support units are responsible for surveillance and security of their assigned defensive sectors or tactical localities. The division commander prescribes surveillance responsibilities for rear areas not assigned to combat units.

(4) Conduct.--The local security force accomplishes its mission by establishing listening and observation posts and by active patrolling. In circumstances where division units are widely separated and are temporarily on the defensive, the local security task assumes an all-round character and may demand that sizable forces be employed.

709. TYPES OF DEFENSE

There are two basic types of defense--area defense and the mobile defense. Often the most suitable form of defense for a given situation will be some variation of either the mobile or area defense, incorporating elements of each. The defensive pattern established is that which best meets the requirements of the particular situation after consideration of the resources available.

710. AREA DEFENSE

a. The area defense emphasizes the retention or control of specific terrain for a specified period. The defender deploys the bulk of his combat power in the forward defense area to stop enemy forces forward of the FEBA. He relies on the ability of fires and forces deployed on position in the forward defense area to stop and repulse the attacker. The forward defense echelon has a higher priority for combat power than does the reserve.

b. In the area defense, the defender plans to accept decisive engagement and to accomplish his mission primarily by engaging the attacker along the FEBA assisted by a large volume and variety of fires. He conducts counterattacks primarily to eject or destroy enemy forces that penetrate the forward defense area and regain control of the forward defense area and terrain that the defense is to retain.

c. The defender may not be able to occupy all key terrain in the defensive area; however, he deploys sufficient combat power forward to dominate the area.

711. PLANNING THE AREA DEFENSE

a. The defense plan is evolved from a detailed reconnaissance of the area and an analysis of the situation to determine the most effective way to use the terrain and available resources. It provides for security forces, forward defensive forces disposed in depth, and a reserve. It indicates the location of the forward defense area, provides fire support to all defensive echelons, and provides for additional obstacles and barriers to improve the natural defensive strength of the terrain.

b. The operation plan (order) will indicate the following:

(1) Location of COP and GOP when used.

(2) Location of FEBA and forward defense area.

(3) Location of reserve.

(4) Boundaries and coordinating points.

(5) Organization for combat.

(6) Missions to major subordinate units.

(7) Fire support plan. This plan is normally issued as an annex to the operation order or as separate annexes (air, NGF, artillery) within the framework of the commander's plan of fire support.

(8) Barrier plan. This plan is normally issued as an appendix to the antimechanized annex to the operation plan.

(9) Counterattack plans. These plans are normally issued separately, but references the basic defense plan.

(10) Communication plan.

c. Counterattack plans are prepared as outlined in subparagraph 717c. The primary function of the counterattack in the area defense is to destroy or eject penetrating forces and to regain control of the battle area.

712. ORGANIZATION OF THE AREA DEFENSE

a. The area defense is organized basically to provide security and prevent surprise, to stop and repel an enemy attack, and to destroy or eject a penetration of the defended area. Therefore, the commander provides for defensive echelons to include security forces, forces to organize and occupy the forward defense area, and a reserve.

b. The FEBA normally is designated by higher headquarters by establishing coordinating points. Coordinating points for the GOP are also normally designated by higher headquarters to ensure coordination with adjacent units. Based on the mission of the division and a detailed reconnaissance to determine avenues of approach and key terrain, the commander

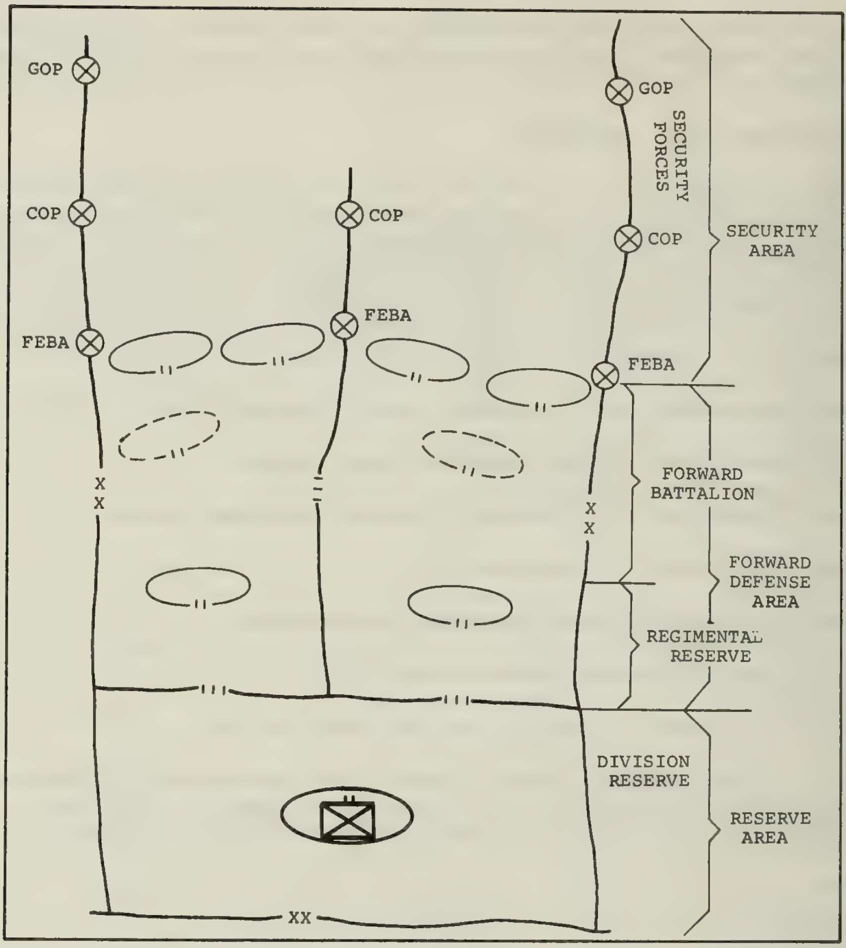


Figure 20.--Organization of Area Defense By a Division.

designates defensive areas, establishes boundaries and coordinating points for major subordinate units, and designates the location of the reserve. (See fig. 20.)

c. The division uses a GOP, as appropriate. This force is initially positioned to take advantage of natural obstacles and to deny to the enemy ground observation of, and ability to deliver artillery fire into, the forward defense area. The GOP is described more fully in paragraph 708.

d. The combat outpost is a security element of the regiment in the forward defense area. It is located to provide timely warning of the enemy's approach and to deny the enemy close ground observation and direct fires into the forward defense area. The division commander prescribes the general location of combat outposts to the extent necessary to ensure the provision of security.

e. The forward defense areas organized into a series of defensive areas which provide good observation and natural defensive strength.

Positions are prepared to block avenues of approach at the FEBA and in depth to control the area. The bulk of the division's combat power is committed to defending the forward defense area. The natural defensive characteristics of the terrain are increased as time permits by the use of artificial obstacles, fortifications, and barriers.

f. The reserve is positioned so that it can execute counterattack plans and contain penetrations from the front or flanks. The reserve ensures the continuity of the defense by counterattacking to destroy enemy penetrations, by reinforcing forward elements, or by executing blocking missions.

713. CONDUCT OF THE AREA DEFENSE

a. The attacking enemy normally is taken under long-range fire as early as possible unless deception is an essential element of the defense. As the enemy advances, he is then taken under fire by elements in the security area. These security forces warn of enemy approach, deceive him as to the location of the FEBA, and execute maximum disruption and delay without becoming decisively engaged. They attempt to inflict maximum casualties on the enemy and to force him to deploy his main forces prematurely.

b. In the area defense, emphasis is placed on blocking avenues of approach at the FEBA and defending in depth to hold the terrain. Forces in the forward defense area exert every effort to halt the enemy. If the enemy penetrates the area, however, the forward defense forces canalize him and force him into areas favoring counterattack.

c. The counterattack is the principal means of eliminating a penetration and restoring the integrity of the battle area.

714. COUNTERATTACK IN THE AREA DEFENSE

a. In the area defense, the counterattack is used to destroy or eject an enemy force which has penetrated the defensive position, thus regaining control of the forward defense area.

b. Considerations involved in selecting the exact time and place for the counterattack are similar to those which apply to the mobile defense as discussed in paragraph 715. The counterattack is launched preferably when the enemy has been stopped, slowed, or disorganized and before he is able to consolidate gains and reorganize his forces; however, these must not be considered essential criteria. The counterattack must be launched before the enemy strength in the penetration becomes too great, while there is still a reasonable chance of success.

c. Once launched, the counterattack is provided all possible support and available resources to ensure success. Once the enemy force in the penetration has been destroyed, the counterattacking force normally returns to its original or alternate positions as division reserve. However, it may be given the mission of occupying and defending the restored area.

d. If the enemy force in one or more penetrations is too strong to counterattack with a reasonable chance of success, the reserve may be used to contain or, if necessary, cover the withdrawal of troops in the battle area. However, any course of action which deviates from the mission requires approval or direction from higher headquarters. Whenever the division no longer has the capability of conducting a counterattack, higher echelon must be notified immediately.

715. MOBILE DEFENSE

a. The mobile defense employs a combination of offensive, defensive, and delaying actions. In a mobile defense, the commander deploys minimum forces forward and uses maneuver with organization of fires and terrain to seize the initiative from the enemy. This defense emphasizes destruction of enemy forces rather than retention of terrain. It relies primarily on the use of mobile offensive forces to accomplish the principal mission of the mobile defense--destruction of enemy forces.

b. In the mobile defense, the defender plans to accept decisive engagement and to accomplish his mission primarily by executing offensive action against the attacking enemy forces. Control of the forward defense area and the retention of terrain are not primary objectives of the counterattack. The forward defense echelon--those minimum necessary forces initially committed in the forward defense area--conducts defensive, delaying, screening, or limited offensive operations in any combination required to make the attacker vulnerable to counterattack by the reserve. Mobility equal or superior to that of the enemy is essential for all elements of the defensive force.

c. Normally, the division is the smallest element capable of conducting a mobile defense because of the need for a strong reserve capable of executing a decisive counterattack.

d. The reserve echelon receives priority in the allocation of combat power in the mobile defense.

e. Figure 21 illustrates a type organization for mobile defense.

716. CONDUCT OF THE MOBILE DEFENSE

a. Reconnaissance forces are deployed in the early stages of the operations to gain and maintain contact with the enemy and to gain information relative to his strength, composition, and direction of attack. Aggressive reconnaissance by air and ground elements enables the defender to retain a high degree of initiative. These forces are supported by long-range fires, to include air support, in order to destroy and disorganize the enemy and to disrupt his efforts to launch an attack. Successive security echelons are established as the situation dictates to maintain contact with the enemy and to develop intelligence as to the enemy's location, strength, composition, and preparation for attack.

b. When the enemy undertakes the offense, contact is maintained by aviation and forward ground security echelons. The enemy's offensive formations are disrupted by fire and, when feasible, by spoiling attacks. When nuclear weapons are authorized and employed, their use during this phase is dependent on the overall plan for the defense. If adequate weapons are available, the plan may envisage their extensive use during the enemy's advance with the intent of destroying him before he closes the defensive area. If the supply of weapons is limited, the plan may be to canalize the enemy and cause him to present profitable targets immediately in front of, or within, the battle area.

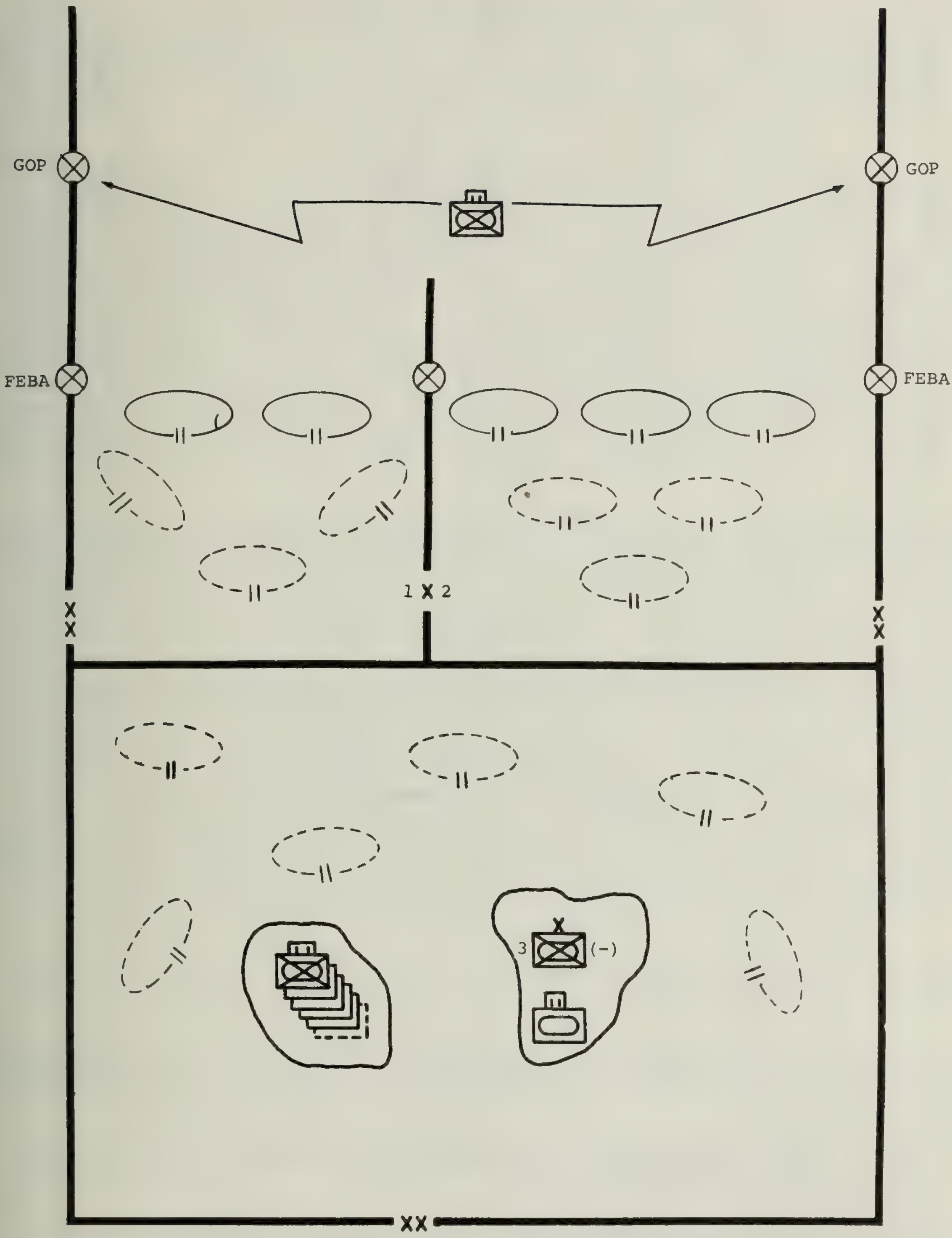


Figure 21.--Type Organization for Mobile Defense.

c. The various security echelons maintain contact with the enemy until forced to withdraw. Withdrawal of the general outpost is covered by the forward units in the battle area. A combat outpost is not normally employed in the mobile defense due to the minimum forces available in the forward defense area. Withdrawal of the echelon in contact is covered by the next rearward echelon.

d. As the enemy comes in range of the forward forces, he is subjected to increasingly heavy fires. His combat units, and in addition, attack positions, assembly areas, artillery positions, and command and supply installations are taken under fire. Continuing effort is made to determine the strength and direction of the enemy's main attack. During this phase, consideration should be given to subjecting the enemy to limited offensive action or spoiling attacks. Infiltrators in small groups are destroyed by the security forces or by infantry units dispatched from the defensive sector. Combat power is rapidly reallocated and relocated in accordance with the scheme of defense. Troop units are shifted rapidly and, when necessary, concentrated to the extent required to effect a decision. Adjustments of boundaries are rapidly made in regiment and battalion sectors to maintain unity of command and effort. When the enemy begins his assault, all available defensive fires, including long-range fires of units not under attack, are brought to bear on him.

e. It must be anticipated that an aggressive enemy will locate the unoccupied areas of the sectors of defense and may be able to effect multiple penetrations of the defensive area. Local security forces ensure the early detection of all probing actions by the enemy. Barriers and preplanned fires delay, disrupt, canalize, and assist in destruction of enemy forces in the penetrations. Counterattacks, supported by nuclear fires when feasible, are employed to reduce such penetrations. Local counterattacks are conducted with battalion and regiment sectors by any or all of the unengaged elements of the respective units. If forces available in a regimental sector are inadequate to eject or destroy the penetration, the counterattack is conducted by the division reserve. Because of the extent of the division sector, it may be impracticable for all of the division reserve to be committed against a single penetration. Only as much of the division reserve as is necessary to ensure success of the counterattack is employed. (See figs. 22 and 23.) Conversely, the strength of the penetration may require that unengaged elements of the forward forces be employed to counterattack in conjunction with the designated division reserve. When the division is operating as part of a larger force, the division may:

(1) Reduce one penetration with all available fires combined with a counterattack, while containing the others with fires and by occupation of blocking positions.

(2) Contain all penetrations with fires and occupy blocking positions with the reserve until counterattacks are launched by higher headquarters, or his reserve is reinforced sufficiently to permit his effecting a counterattack.

f. The following measures are employed to canalize, slow or stop, and destroy enemy penetrations:

(1) The establishment of barriers and strong blocking positions to halt, deflect, canalize, or contain enemy forces.

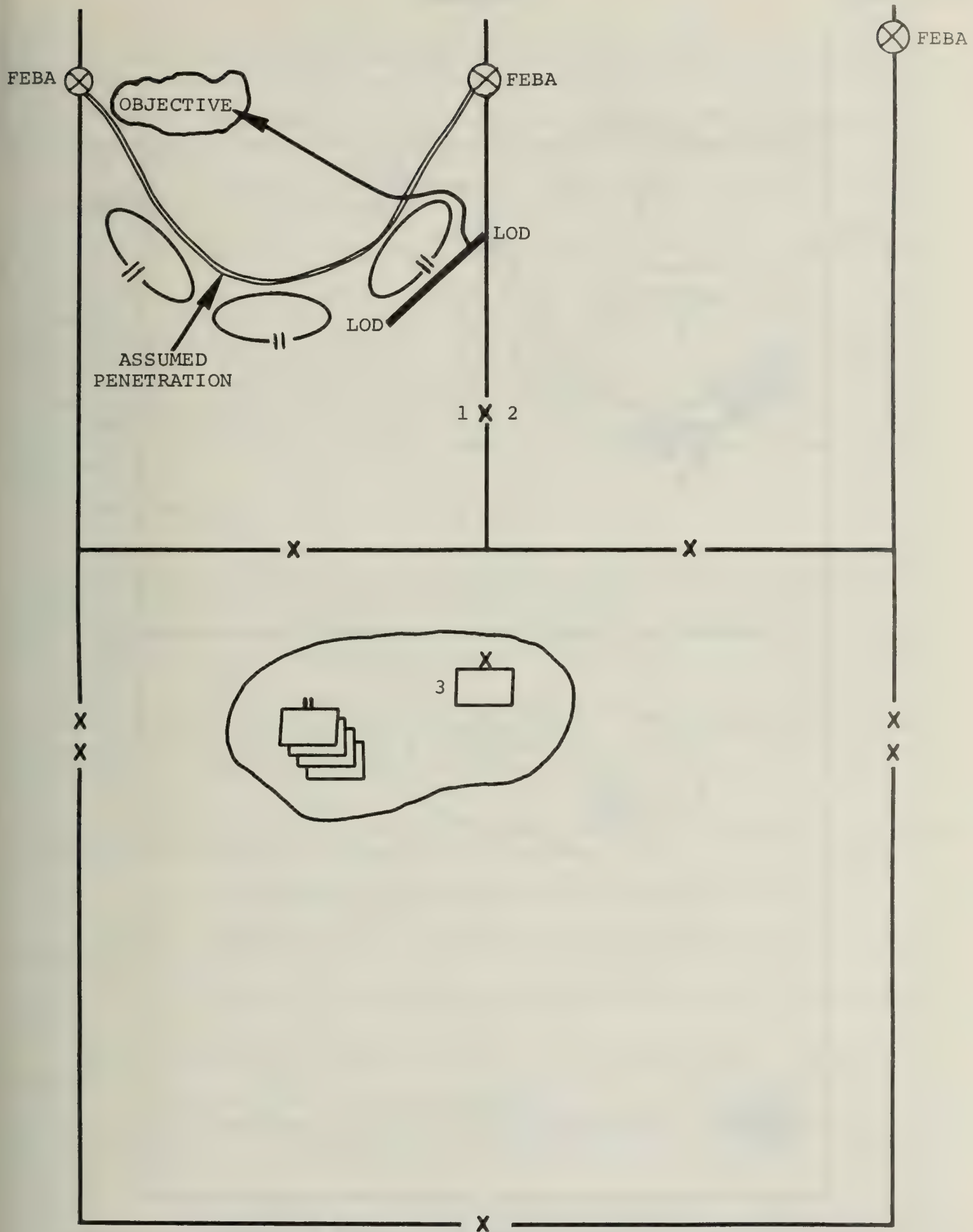


Figure 22.--Division Counterattack Plan Without a Boundary Change.

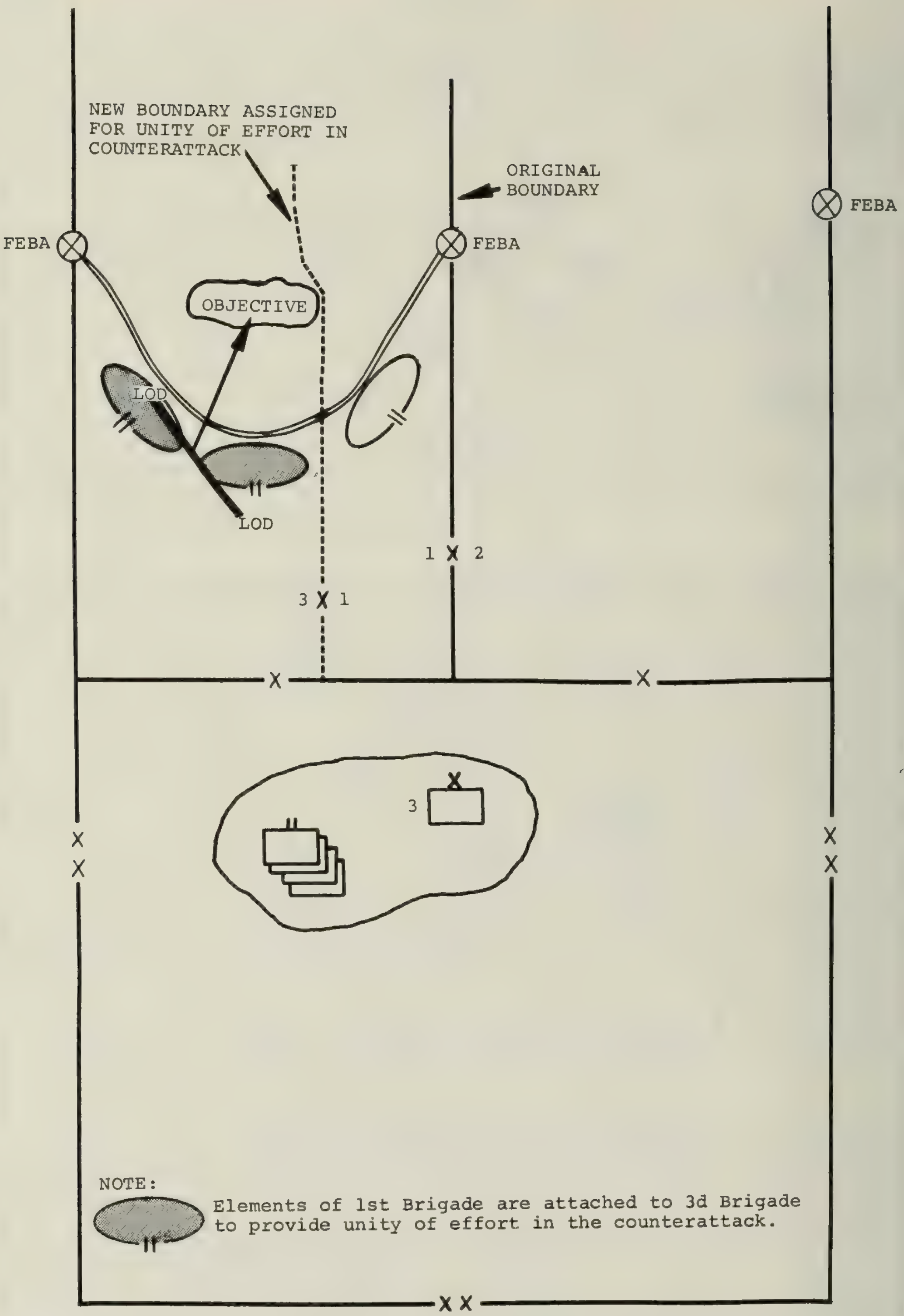

NEW BOUNDARY ASSIGNED FOR UNITY OF EFFORT IN COUNTERATTACK
ORIGINAL BOUNDARY
FEBA
FEBA
FEBA
OBJECTIVE
LOD
LOD
1 X 2
3 X 1
X
X
3
XX
XX
NOTE:
Elements of 1st Brigade are attached to 3d Brigade to provide unity of effort in the counterattack.
XX

Figure 23.--Division Counterattack Plan With a Boundary Change.

(2) Planned withdrawal of units to canalize or draw the enemy into preselected portions of the forward defense area.

(3) Prearranged fires to seal off and prevent reinforcement or withdrawal and to destroy enemy forces in each penetration.

(4) Execution of counterattack plans by a strong mobile reserve to eliminate penetrations and destroy the enemy.

(5) Immediate replacement of units lost to enemy nuclear weapons.

g. Protection of combat support and combat service support units against infiltration becomes a critical task because of the large unoccupied areas that may exist between units. This is particularly true of artillery units that are positioned well forward. Battalions and regiments provide security for units attached to their commands. They may also be directed to provide protection for other division units positioned in their sectors. Units located in the division rear area may receive protection from nearby combat units such as the division reserve when the tactical situation so dictates.

717. COUNTERATTACK

a. The counterattack is the commander's primary means of destroying enemy penetrations, restoring the battle area, and regaining the initiative. Counterattack plans are prepared for all assumed penetrations and for selected positions of the FDA. The counterattack plans, like other defensive preparations, are constantly being improved and refined. They should be rehearsed by at least the key personnel of the counterattacking force.

b. Counterattack plans must provide for the rapid concentration of necessary forces, exploitation of supporting fires, and equally rapid separation of units after accomplishment of the mission. This requires that appropriate means of mobility be immediately available for execution of the plan.

c. The details contained in counterattack plans are similar to those in attack plans with the following additions:

(1) Assignment of blocking missions to subordinate units.

(2) Designation of a temporary reserve, should the entire reserve be committed.

(3) Action to be taken after successful conduct of the counterattack.

d. Considerations in the preparation of counterattack plans are as follows:

(1) Plans are prepared on a priority basis. That is, plans for the destruction of the penetration most dangerous to the command are prepared first.

(2) Plans should indicate the extreme depth to which the penetration will be permitted to go. The assumed penetration should indicate the loss, or threat of loss, of key terrain.

(3) Plans for counterattacks into preselected areas include instructions for units positioned within and on the periphery of each area.

(4) Counterattack forces are assigned objectives, the seizure or destruction of which will ensure the accomplishment of the mission. Objectives may be enemy forces, terrain features, or both.

(5) One or more lines of departure are designated for use during rehearsals and for coordination and control of counterattacking forces at the time the counterattack is launched. Normally, the line of contact will become the line of departure when the counterattack is ordered executed.

(6) A direction of attack is selected that strikes the enemy at the point most favorable for the counterattacking force and for accomplishment of the mission.

(7) When nuclear weapons are employed, the fire support plan must ensure that the condition of the area of a nuclear burst does not prohibit the rapid movement of the counterattack force.

(8) Attack positions are selected in covered areas near the line of departure to permit concentration of maneuver elements of the counterattacking force moving in from separated areas. This will facilitate continued movement in the desired direction of attack, coordination of fires, and the rapid exploitation of these fires. Under conditions of nuclear weapons employment, these attack positions will be occupied for the minimum essential time required to coordinate the maneuver elements and the supporting fires.

(9) Movement to attack positions and to the objective must be planned so as to provide required concentration at the latest possible moment. The plan must likewise provide for immediate separation of units after accomplishment of the mission.

e. In formulating counterattack plans, the commander must weigh carefully the enemy's nuclear capability and the effect the employment of such weapons will have on his plans. Provisions must be made for alternate plans to accomplish the mission despite the use of nuclear weapons by an enemy.

f. The division commander considers the following principal questions in arriving at a decision to launch a counterattack; affirmative answers may indicate the need to consider execution of the appropriate counterattack plan:

(1) Has the impetus of the enemy attack been slowed or stopped?

(2) Has fire failed to eject the enemy?

(3) Are reserves and supporting fires adequate?

(4) Is key terrain lost or threatened?

(5) Has the enemy been canalized into a preselected area of the FDA?

g. Following commitment of the reserve in a counterattack role, a new division reserve is reconstituted or redesignated as soon as the situation permits. Noncombat units, such as headquarters and service organizations, less the medical battalion, may be utilized to provide a temporary reserve.

h. Unity of command in the area of the counterattack is essential and may be accomplished by one or more of the following:

(1) Presence and supervision by the division commander.

(2) Assigning a zone of action to the counterattack force.

(3) Attachment of units in the area to the counterattack force.

(4) Adjustment of boundaries.

718. COMMUNICATION CONSIDERATIONS

a. The time available to prepare the defense and the type of defense will determine the means and the extent of the communication system which should be established to support the mission. Advance planning by communication personnel is essential. The communication system must interconnect all major command elements and provide entry into the system for the covering force, outposts, reserve, and other units and activities as required.

b. The distances between subscribers, the terrain, and the tactical situation will also influence the type of communication means and the extent of the system.

(1) In the area defense, radio communications are subordinate to multichannel radio, wire, and messengers. Wire communications are employed extensively and are made as elaborate as the time and capabilities permit.

(2) If a mobile defense is used, primary reliance is placed in radio communications and messengers to enhance the maneuvers, fire, and offensive action required to accomplish the defensive mission. For a detailed description of communications during defensive operations, see FMFM 10-1, _Communications_.

719. OTHER CONSIDERATIONS

a. _Defense at Night_

(1) _Individuals_.--Individuals must be trained and conditioned to defend at night with great efficiency. Combat and combat support forces must have complete confidence in their ability to fight effectively at night and understand that darkness and other causes of reduced visibility, properly used, are an asset to the defender.

(2) _Security_.--Wide frontages and gaps between units increase the requirement for security to prevent infiltration by enemy units. Counterreconnaissance, listening posts, and other security measures assume greater importance.

(3) _Surveillance_.--Electronic surveillance devices are emplaced to cover forward of the battle area and gaps between tactical localities within the battle area.

(4) Illumination.--Illuminating devices such as searchlights, flares, illuminating shells, and other expedients are integrated into the plan for defense.

(5) Nuclear Weapons.--Plans are made for the employment of nuclear weapons. When authorized, they are used to blind the attacker, cause heavy casualties, and disrupt his attack. Their preplanned use will include measures to alert defending forces, including adjacent units.

(6) Rehearsals.--Rehearsals are essential to the success of night counterattack and to night movement to reinforce or to block an enemy attack.

b. Defense Against Helicopterborne Attack

(1) General.--The Marine division must be prepared for defense against helicopterborne attack.

(2) Objectives.--Helicopterborne forces will normally be landed near occupied objectives or on occupied objectives. Maximum effort must be made to destroy the helicopterborne forces while in the air, hovering, or landing. Critical areas within the defensive sector should be occupied with small forces, or at least with observation posts sited to cover likely areas and air routes of approach.

(3) Mobility.--Tank-infantry teams are highly effective in counterattacking helicopterborne penetrations in the division area. The mobility, speed of response, and shock action of these teams will prevent or reduce consolidation and reinforcement of enemy helicopterborne forces by striking them during the early and vulnerable phase of their initial landings. Mobility and speed of response may often be dominant to shock action and may require the use of helicopterborne forces in countering enemy helicopterborne penetrations.

c. Defense Against Airborne Attack

(1) Areas considered possible drop zones and logical airborne objectives should be occupied or be kept under observation by observation posts sited to cover these critical areas as well as likely air routes of approach. All means should be utilized to destroy the transport aircraft prior to the discharge of the airborne forces.

(2) Rapidity in launching counterattacks against the initial landings is the key to a successful defense. Mobile tank-infantry teams are ideally suited to conduct such counterattacks against the airborne assault forces.

d. Air Defense.--Air defense for division elements is normally provided by the integrated aircraft and surface-to-air missile team of the Marine aircraft wing. Other air defense means may occasionally be provided by other friendly forces.

SECTION 8

RETROGRADE OPERATIONS

801. GENERAL

a. Retrograde operations are movements of a command away from the enemy. They are classified into three basic types:

(1) Withdrawal action in which all or part of a force is disengaged for employment elsewhere.

(2) Delaying action in which a force trades space for time, avoiding decisive engagement while inflicting maximum attrition on the enemy.

(3) Retirement in which a force avoids combat by moving away from the enemy without enemy pressure.

b. The Marine division or its subordinate elements may conduct retrograde operations to:

(1) Permit the division, or major elements of it, to be employed elsewhere.

(2) Reduce the enemy's combat power by attrition (e.g., over extension of lines of communications), while at the same time avoiding decisive engagement.

(3) Gain time pending development of more favorable conditions for resumption of the offensive.

(4) Place the division or one or more of its subordinate units in a more favorable position.

(5) Draw the enemy into an unfavorable situation.

(6) Maneuver the enemy into areas for destruction by a counter-attacking force or by nuclear fires.

(7) Harass, exhaust, and inflict maximum attrition on the enemy forces.

(8) Retain maximum freedom of action.

802. BASIC CONSIDERATIONS

a. Enemy Situation.--Current knowledge of the enemy situation is essential to planning a retrograde operation. What are the enemy's capabilities, and what is the enemy most likely to do prior to and during the retrograde operation?

b. Avoid Decisive Engagement.--The basic purpose of a retrograde operation is to regain the initiative and retain freedom of action. While the force as a whole must avoid decisive engagement, sharp local actions and vigorous limited objective attacks may be essential to secure freedom of action.

c. Terrain and Weather.--Terrain may seriously restrict the use of tracked and wheeled vehicles; under such conditions, helicopter and foot mobility may be crucial to success. Maximum use of cover, concealment, and periods of limited visibility is essential to reduce the enemy's capability to detect movement and disposition of friendly forces. Weather affects trafficability, observation, control, functioning of material, and the employment of fire support and air support.

d. Coordination and Control.--Retrograde operations are perhaps the most difficult operations to conduct because of the battlefield conditions which exist; therefore, forceful leadership, strict discipline, effective control, and comprehensive planning are especially important. Retrograde operations are characterized by detailed centralized planning and decentralized execution. Careful planning is essential to avoid concentrating forces into lucrative targets at defiles and chokepoints along routes of withdrawal. Reconnaissance aircraft and aerial observers are of special value in maintaining current knowledge of conditions along routes of withdrawal, as well as detecting enemy maneuver. Forceful leadership and effective troop information programs are essential to retain an aggressive spirit and therby ensure high morale.

e. Mobility.--Superior mobility is a key to retention of freedom of action. Maximum use is made of every available means of transportation to conserve the fighting strength of combat forces and to gain maximum time for occupation and organization of new positions. Complete control of routes of withdrawal is essential. Stringent traffic control and control over civilian movement is essential to avoid unacceptable congestion along routes of withdrawal. Demolition and obstacle planning must be carefully coordinated with movement plans to gain maximum restriction on enemy maneuver while minimizing restrictions on movement of friendly forces. Demolition of bridges and other chokepoints must be carefully controlled by the division headquarters to prevent either premature destruction or capture intact by the enemy. Helicopters greatly enhance mobility, but their use in retrograde operations must be carefully integrated with deception planning to prevent premature disclosure of friendly movements to the enemy.

f. Fire Support.--Fires are planned to enhance the effect of obstacles and barriers in inhibiting enemy maneuver. Smoke is employed to screen troop movements, in deception operations, and to assist in disengagement. When the use of nuclear weapons is authorized, they may be employed to create obstacles and against enemy forces concentrating for attack. Close air support is effectively employed in harassing and interdicting enemy maneuver.

g. Logistics Support.--Logistics planning must provide for early movement to the rear of all logistics installations and materiel not required to support the retrograde operation. Plans must be made for the destruction of materiel which cannot be evacuated. Supplies required to support the retrograde operation are stockpiled at selected locations along planned routes of withdrawal.

h. Security and Deception.--Deception measures are employed to deceive the enemy as to the strength and disposition of forces remaining in contact, the time of withdrawal, and the locations of new positions. Security is obtained through both active and passive security measures, including:

(1) Employment of counterreconnaissance forces to deny the enemy knowledge of the actual withdrawal for as long as possible.

(2) Employment of helicopterborne forces to enhance flank security and to patrol gaps developing between withdrawing forces.

(3) Conduct of limited objective attacks to facilitate disengagement and to deceive the enemy as to friendly intentions.

(4) Movement during periods of reduced visibility or under cover of screening smoke to deceive the enemy and reduce the effectiveness of enemy target acquisition means.

(5) Insertion of dummy or false messages to maintain a normal level of message traffic at the old positions.

803. WITHDRAWAL ACTION

a. General

(1) Withdrawals may be executed when forced by enemy pressure or when the commander desires to withdraw in furtherance of future tactical operations without being forced to do so by enemy pressure. Withdrawals without enemy pressure are favored over withdrawals under enemy pressure. They provide freedom of action since the commander selects the time of withdrawal. They facilitate deception and reduce the effectiveness of observed enemy fires since the commander can take advantage of darkness or other conditions of reduced visibility.

(2) The withdrawal plan requires subordinate units to develop contingency plans for both types of withdrawals. The success of a withdrawal not under enemy pressure depends on deception. A withdrawal under enemy pressure envisions fighting to the rear. When secrecy of movement is lost, the division conducts a withdrawal not under enemy pressure like a withdrawal under enemy pressure. If smoke is used, or if other conditions reduce enemy observation, a withdrawal under enemy pressure may be based on

deception as in a withdrawal not under enemy pressure. The division develops illumination plans to support a night withdrawal in case the withdrawal is discovered by the enemy.

b. Plans and Orders

(1) The commander and his staff formulate a withdrawal plan. This plan includes the scheme of maneuver and a fire support plan. These are developed concurrently and are closely integrated. The plan of withdrawal provides for security, combat service support, and communications. The plan must include but is not limited to the following:

(a) New location to be occupied and disposition of units in that location.

(b) Time and sequence of withdrawal of all subordinate units.

(c) Coordination measures.

(d) The covering force and its location.

(e) Tactical cover and deception measures.

(f) Organization for combat and time phasing of attachments and support.

(g) Disposal of supplies and equipment in a manner and at a time that will not compromise the withdrawal plan.

(h) Fire support.

(i) Combat service support.

(j) Evacuation of patients.

(k) Traffic control measures.

(l) Communication plans.

(m) Instructions concerning preparation of demolitions and other obstacles.

(n) Electronic warfare support.

(2) As soon as the concept of operation is reasonably firm, the commander issues a warning order in sufficient detail to permit reconnaissance and planning by subordinate commanders during daylight hours.

(3) Aggressive, limited objective attacks facilitate a withdrawal. Such attacks force the enemy to delay his attack or to assume the defense, thus permitting the withdrawal to be conducted with minimum interference.

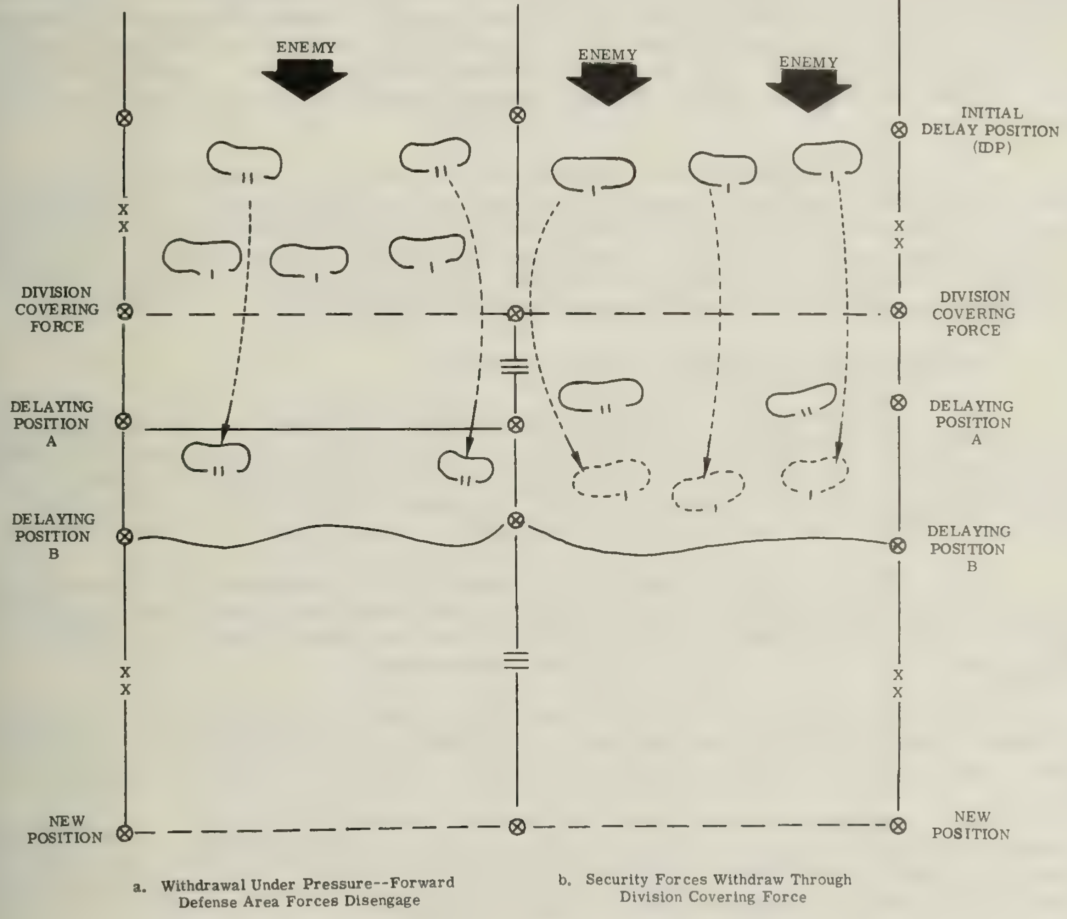
(4) Division reserves cover the withdrawal of the division, perform route and area reconnaissance missions, or secure and hold key terrain essential to the success of the withdrawal.

(5) Nuclear or chemical munitions may be used to assist in the withdrawal of units and to support the security of forces by firing against enemy troop concentrations.

c. Withdrawal Under Enemy Pressure

(1) General.--The successful conduct of a withdrawal under enemy pressure depends on local air superiority, speed, control, and effective employment of security forces. (See fig. 24.)

(2) Conduct.--In a withdrawal under enemy pressure, elements use delaying tactics to fight their way to the rear. Since withdrawals under enemy pressure are normally subject to enemy observation, success depends on mobility, control, effective employment of covering forces, and local control of the air.



a. Withdrawal Under Pressure--Forward Defense Area Forces Disengage

b. Security Forces Withdraw Through Division Covering Force

1. Division reserve as covering force occupies positions from which it provides security for withdrawal of forward regiments.
2. Forward regiments withdraw and occupy delaying position "A".
3. Withdrawal of division covering force is furnished by security forces recently moved to delaying position.

Figure 24.--Withdrawal Under Enemy Pressure.

(a) Procedures for withdrawal under enemy pressure provide for security forces at all echelons to cover forward elements that withdraw intact without leaving detachments in contact. Each unit of the forward defense echelon normally provides and controls its own security force.

(b) The division reserve normally provides the division covering force. It would normally be augmented by tanks, field artillery, engineers, and other combat support, and at times, combat service support units. The covering force accomplishes its mission either from the new security area or from prescribed areas forward of the new security area. In addition to covering the withdrawal of the forward defense forces, the covering force assists the forward defense forces to break contact and to delay.

(c) The less heavily engaged elements of the forward defense echelon withdraw first. The more heavily engaged units generally withdraw under cover of the division covering force and the massed fires of all delivery means. Figure 24a illustrates the forward defense echelon disengaging. Nuclear and chemical fires may be used to assist the forward defense echelon to break contact and support the security forces. Smoke can be used to screen movement and to reduce enemy observation and the accuracy of enemy fire.

(d) Movement is expedited. Normally, assembly areas are not used. The division's movement and operations are similar to those of a delay on alternate positions. The use of alternate covering positions by the covering force and the disengaged forward defense echelon continues until the entire division breaks contact with the enemy or reaches the planned delaying position as illustrated in figure 24b.

d. Withdrawal Not Under Enemy Pressure

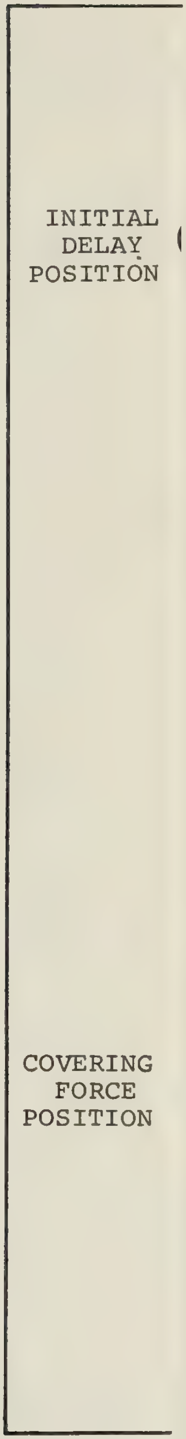
(1) The division normally specifies the time of withdrawal. To gain the utmost advantage from secrecy and deception, the commander takes maximum advantage of darkness and other conditions of reduced visibility. The withdrawal should commence as soon as enemy observation is reduced to the point where the enemy cannot effectively deliver observed fires.

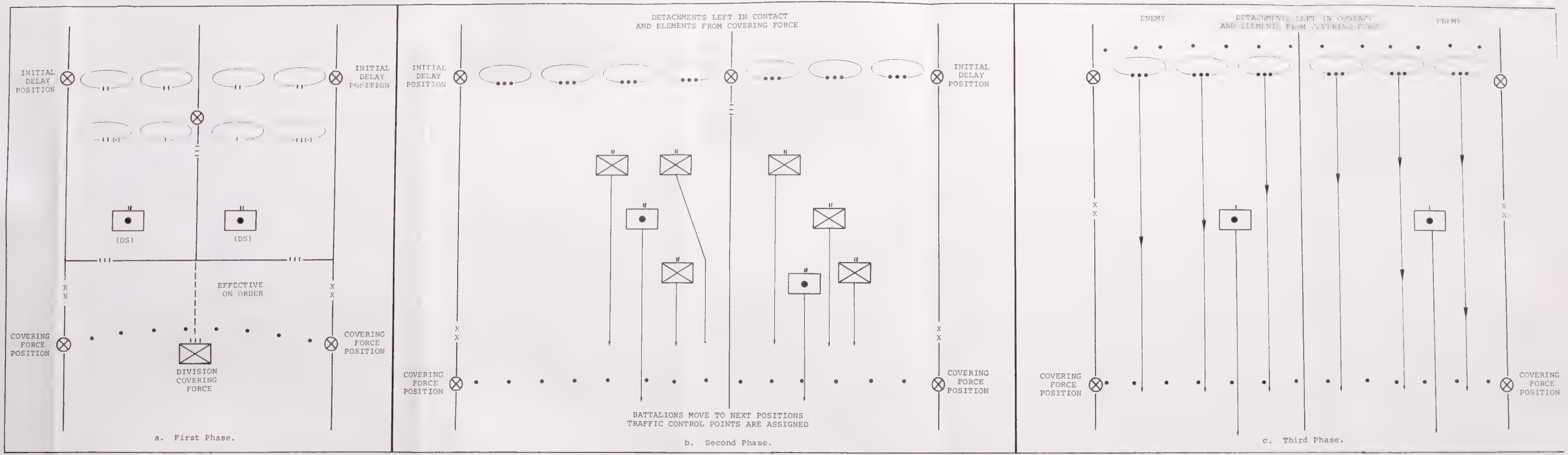
(2) The division commander controls the movement of subordinate units to successive delaying positions by designating times and specific routes of withdrawal, including alternate routes, designating priority of movement, and enforcing traffic control measures.

(3) All daylight activities that might disclose the intention to withdraw, such as abnormal movement of vehicles to the rear, are prohibited. Units must ensure that noise does not betray the withdrawal.

(4) Regiments and other units in contact with the enemy designate detachments left in contact (DLIC) to protect the initial movement of the main body to the rear and to simulate normal activity. These forces may be provided additional transportation capabilities.

(5) The withdrawing force moves to the rear in sequence by dispatching elements to reconnoiter and prepare the next position, displacing combat service support units followed by artillery not essential to the support of detachments left in contact, and then by relocating the division covering force. (See fig. 25a.) Normally, the division reserve becomes


INITIAL DELAY POSITION
COVERING FORCE POSITION



a. First Phase.

b. Second Phase.

c. Third Phase.

Figure 25.--Withdrawal Not Under Enemy Pressure.

the division covering force. After the above moves are completed, the main body moves (see fig. 26b), and finally, the detachments left in contact and their direct support artillery are withdrawn (see fig. 25c).

(6) Units in the forward defense area execute the withdrawal on a broad front. Units move directly to the rear and proceed to designated locations. To further the reorganization and assembly of units, regiment or division may designate assembly areas for subordinate units. Such areas are widely dispersed and are occupied for minimum periods.

(7) When all elements of the division, except the detachments left in contact, have disengaged from the enemy and formed for movement, the withdrawal is considered completed. Further movement to the rear or away from the enemy is classified as a retirement (see par. 805).

(8) The detachments left in contact have a limited capability for resistance and must depend on deception and long-range supporting fires to accomplish their mission. Division coordinates their employment; however, regiments specify their times of withdrawal in consonance with the actions of adjacent units.

(9) The success of a withdrawal not under enemy pressure depends on control, security, and deception. Detailed plans, deception, and simulation of normal radio traffic, fires, and other activities aid control and security.

804. DELAYING ACTION

a. General

(1) A delaying action is a retrograde movement in which space is traded for time, and maximum punishment is inflicted on the enemy without becoming decisively engaged in combat.

(2) A unit is decisively engaged when it loses its freedom of maneuver and can no longer initiate planned action. Although elements of a battalion or regiment may be decisively engaged, the division can still execute the delay.

(3) Delaying operations are characterized by wide frontages, maximum firepower forward, small reserves, and lack of depth. They are executed more effectively by highly mobile forces and used in conjunction with close air support.

(4) Delaying forces must offer a continuing threat of serious opposition in order to force the enemy to deploy and maneuver.

(5) Delay may be accomplished on either successive or alternate positions. Continuous delay is inherent in both types of delay.

(a) The delay on successive positions may be used when a relatively wide frontage is assigned.

(b) The delay on alternate positions can only be used when the division can accomplish its mission and can occupy two positions simultaneously. This normally will prevail when the frontage assigned is relatively narrow.

(c) The above techniques may be used in combination.

(6) The echelons of a delaying position are similar to those used in the defense. They may consist of a security area, a forward defense area, and a reserve area.

b. Planning the Delaying Action

(1) Planning a delay is highly centralized; executing a delay is decentralized to the lowest level at which specific missions are assigned. Movement of delaying forces is coordinated to a degree essential to ensure preservation of security and maintenance of command integrity. Commanders at lower echelons are frequently given authority to execute offensive maneuver against enemy forces provided such action does not endanger accomplishment of the division mission.

(2) To facilitate coordination and control, the defensive area is divided into sectors with regimental boundaries drawn through selected rearward positions. Control measures may include designation of the initial delay position (IDP), area for delay, period of delay, intermediate delay positions, phase lines, boundaries, the line along which the delay will terminate, and any limitations imposed such as use of or restriction on use of mass destruction weapons.

c. Selection of Delaying Positions.--Proper utilization of terrain in selecting delaying positions is of prime importance. Desirable characteristics of delaying positions are:

(1) Natural obstacles on the front and flanks.

(2) Good long-range observation and fields of fire.

(3) Cover and concealment for forces on the delaying position.

(4) Covered and concealed routes of withdrawal.

(5) A series of parallel ridges across the lines of hostile advance.

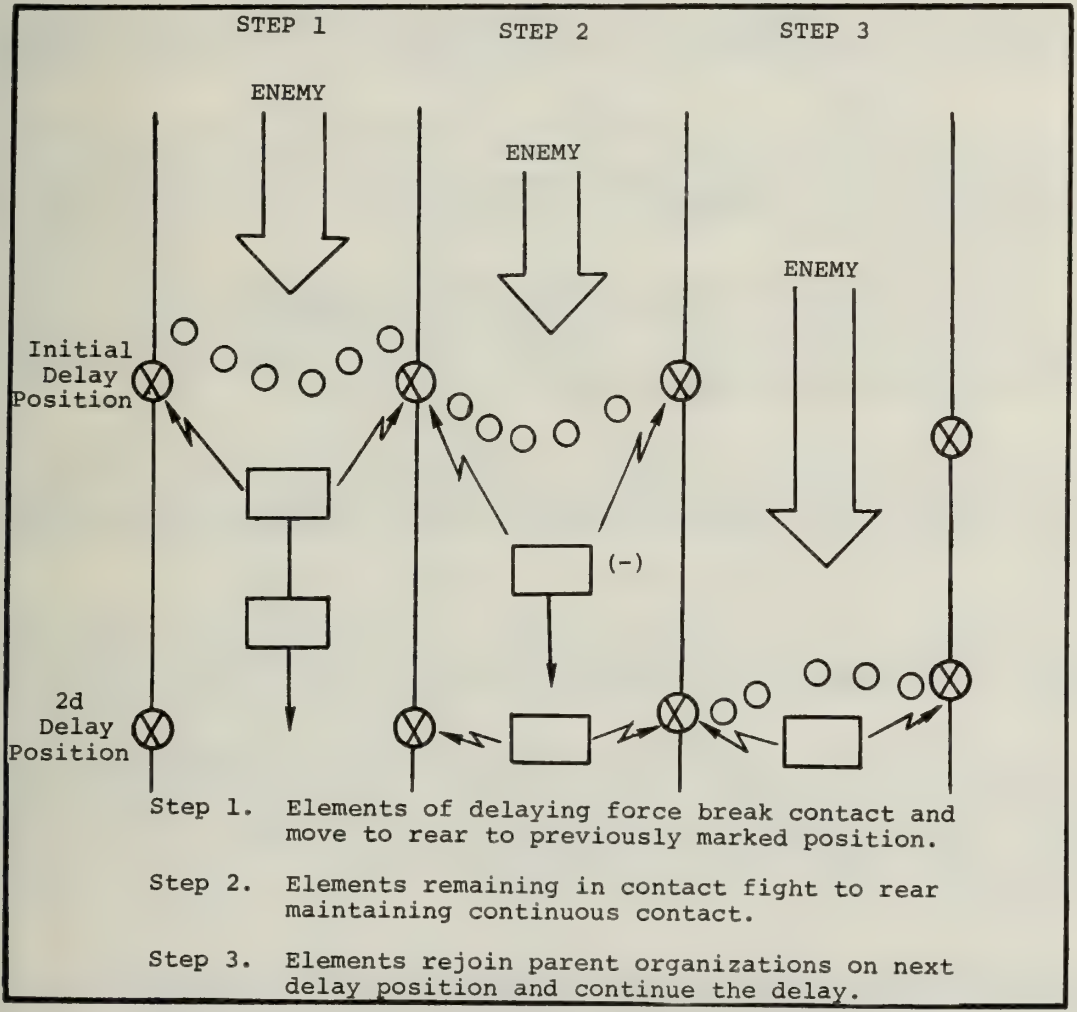
(6) Sufficient distance between successive positions to require the enemy to group before attacking the next position.

d. Organization.--The bulk of the division combat power is deployed on the delaying position and minimum forces are held in reserve. The reserve, frequently as small as one battalion plus tanks, is positioned to cover the most dangerous enemy avenues of approach. Natural obstacles are supplemented by artificial obstacles, and artillery units are positioned well forward to force early deployment of the enemy. Vehicles are held in concealed forward positions to facilitate withdrawal.

e. Conduct of the Delay.--The enemy is taken under fire at maximum range and increasingly heavier fires are delivered as he approaches the delaying position. Particular attention is paid to the enemy units moving toward the flanks or unoccupied areas between organized positions. The regimental or division reserves are employed to counterattack such units to disorganize and delay their advance. The loss of a portion of the delaying position does not require early withdrawal across the entire division zone. Adjacent units and reserves are employed to contain the penetration and maintain the integrity of the positions. Such action should not result in the entire division becoming decisively engaged. Counterattacks are conducted when necessary to achieve additional delay or to facilitate the withdrawal of units too heavily engaged. Withdrawal of forward regiments may be authorized when adequate delay has been accomplished or when necessary to prevent major portions of the division from becoming decisively engaged. The division commander may require subordinate commanders to obtain his permission before committing their reserves. By retaining control over reserves of subordinate units, the division commander can constitute a large division reserve.

f. Delay on Successive Positions

(1) Delay on successive positions is the type of delaying action conducted by the division. When employing this type of delaying action, the major portion of the division is continuously in the line. Figure 26 is a schematic of a division delaying on successive positions.



Step 1. Elements of delaying force break contact and move to rear to previously marked position.

Step 2. Elements remaining in contact fight to rear maintaining continuous contact.

Step 3. Elements rejoin parent organizations on next delay position and continue the delay.

Figure 26.--Delay on Successive Positions.

(2) The IDP is organized and occupied by the major elements of each committed regiment. In some cases, the IDP is occupied prior to the establishment of contact with the advancing enemy. In such cases, a division covering force or security elements from each committed unit are sent forward to establish contact and to delay the enemy advance toward the initial position.

(3) The division may retain a small reserve and should be as mobile as possible. This reserve may be ordered to provide security forces forward of the delaying position, counterattack, protect a threatened flank, secure vital rear areas, prepare successive delaying positions, conduct spoiling attacks to assist in disengaging forces, or provide fire to a withdrawing unit. The reserve frequently will be employed to assist a decisively engaged unit to disengage by executing a counterattack.

g. Delay on Alternate Positions

(1) When operating on a narrow front, the division may elect to delay on alternate positions. Employing this technique, the division is organized into two elements. The first element occupies the IDP and engages the enemy. The second element occupies and improves the second delaying position.

(2) Those units occupying the IDP delay the enemy by employing the continuous delay technique. They delay on the IDP and between it and the second delaying position. When the units arrive at the second delaying position, they withdraw through or around the units that prepared and are occupying that position.

(3) After withdrawing through the second delaying position, the units proceed to the third delaying position and commence the preparation and occupation of that position. Responsibility for delay of the enemy is assumed by the units on the second delaying position when the first element has withdrawn through their position.

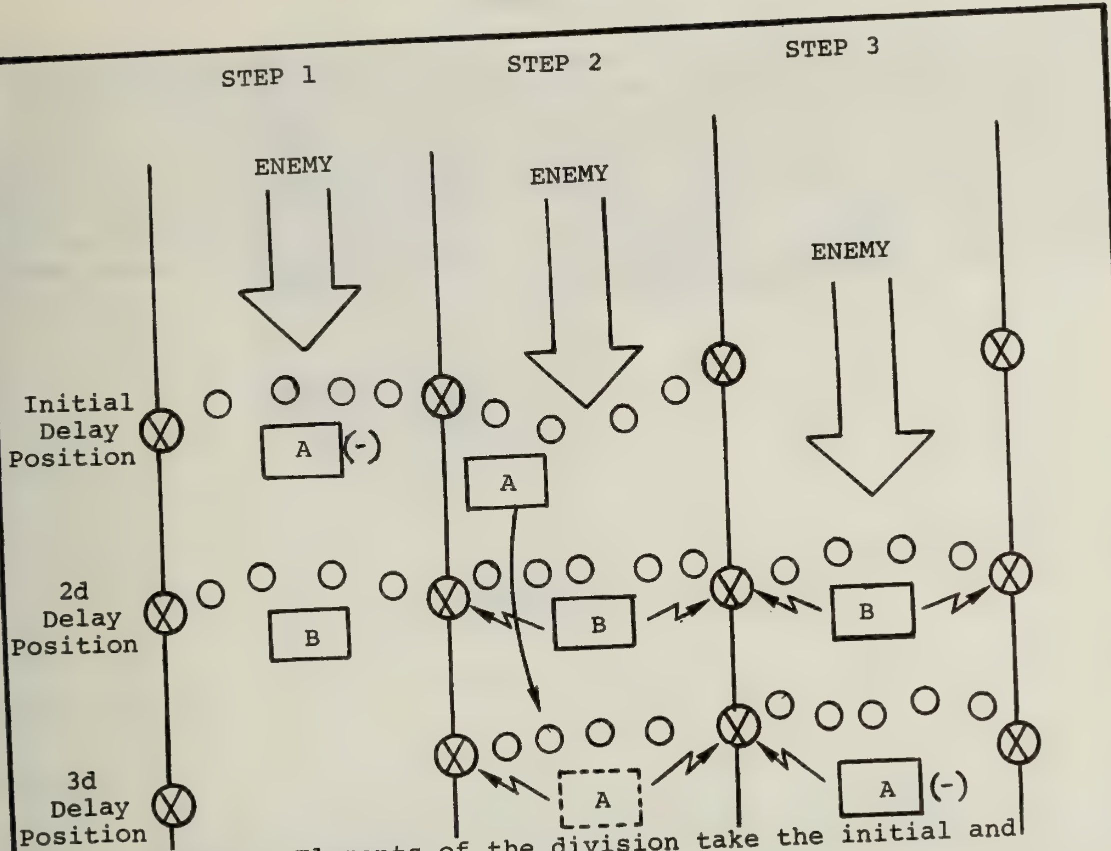
(4) The delay procedure is then repeated, with each element being alternately in contact and responsible for causing the required delay. When not in contact, each element is responsible for improving and occupying rearward positions and for providing covering fire for the withdrawal of the element that is in contact.

(5) Division reserves normally are not retained if this type of delaying action is being conducted. The uncommitted elements occupying alternate positions will be committed as reserves if the need arises. Figure 27 is a schematic of a force delaying on alternate positions.

(6) Delay on alternate positions has the advantage of providing more time for the improvement of delaying positions and the maintenance of materiel. It also provides troops with some relief from combat. This technique has the disadvantage of creating lucrative nuclear targets because of the frequent passage of lines which results.

805. RETIREMENT

a. General.--A retirement is a retrograde operation in which a force avoids combat under existing conditions by conducting an orderly withdrawal according to its own plans and without pressure by enemy forces. The division or its subordinate elements may conduct retirements when not in contact



Step 1. Elements of the division take the initial and second delay positions.

Step 2. Elements on the initial delay position delay back through the second position to the third delay position.

Step 3. Elements on the second position pick up the delay. The third delay position is occupied.

Figure 27.--Delay on Alternate Positions.

with the enemy or subsequent to withdrawal from action. When subsequent to a withdrawal from action, the actual retirement begins when the organization of the march column is completed.

b. Organization.--Depending on the number of routes available, the division may retire in one or several columns. Each column is organized with a main body, an advance guard, flank guard, and rear guard. The advance and flank guards should be made sufficiently mobile to permit accomplishment of their mission without delaying the main body. The rear guard conducts the delaying actions as required to prevent enemy interference with the main body.

c. Conduct.--Supplies and equipment are displaced prior to the movement of troop units. Necessary dumps of supplies are established along the retirement routes. Combat service units may move prior to or with the main body. While not in contact with the enemy, deployed units assemble, march formations are organized, and rearward movement initiated. While in contact, elements of the division not required to support the withdrawal from action, assemble, organize march formations, and commence the rearward movement. Elements in contact conduct a withdrawal from action, assemble, organize march formations, and enter the retirement phase of the retrograde operation. Initial retirement of the units in contact is by multiple small columns. These columns are consolidated into larger ones as the terrain and enemy situation permit.

SECTION 9

TROOP MOVEMENT

901. GENERAL

a. Introduction.--The primary consideration in a troop movement is to ensure that troops arrive at the proper place, at the proper time, in effective fighting condition, and in the most favorable formation to accomplish their assigned mission. Success comes to the unit which moves and concentrates its means rapidly at critical points. The threat of nuclear war increases the need for efficient troop movement.

b. Classification.--Troop movements are classified as tactical or administrative, and may be further classified as to transportation means.

(1) Tactical.--A tactical move is one conducted with primary emphasis on movement in combat-ready formations. It is based on the assumption of early ground contact with the enemy, either en route or shortly after arrival at the destination. Under these conditions, the most efficient use of transportation means is frequently sacrificed for tactical considerations.

(2) Administrative.--An administrative move is one conducted with primary emphasis placed upon efficient use of available transportation. Normally, this type of movement assumes that ground contact with the enemy is remote or improbable during and after arrival at the destination.

(3) Means.--The means of movement are motor, rail, air, and water. The means to be used will depend upon the availability, suitability, and capacity of the transportation means.

c. Fundamentals.--The factors which generally characterize successful troop movements are planning, control, use of means, security, and training.

(1) Plans.--Carefully prepared and detailed plans are necessary for efficient troop movements. Units must be given timely notifications of impending movements in order to permit proper preparation. Factors which must be thoroughly considered and evaluated include:

(a) Organization of troops and equipment to meet the requirements of the tactical situation while best utilizing available transportation.

(b) Assembly of troops and transportation.

(c) Packing and marking of equipment.

(d) Loading of personnel and equipment.

(e) Combat support, combat service support, and administrative support en route and at the destination.

(f) Arrival of personnel and equipment in the desired formation at the destination.

(g) Adequate security en route and at the destination.

(h) Influence of the mission, terrain, weather, enemy, and adequacy of the road transportation net.

(2) Control.--It is necessary in troop movement to control units while the movement is underway. This control is accomplished by proper organization of the force to be moved, its supervision, and communications.

(3) Use of Means.--Within the limits presented by military necessity, troop movements must fully utilize transportation means. This fundamental is paramount in administrative moves. It must always receive consideration in tactical moves.

(4) Security.--Consideration of security is essential in troop movement to avoid surprise attack, and compromise of plans.

902. TACTICAL MOTOR MARCHES

The movement of a division requires detailed planning. The time available for issuing orders frequently is short, yet they must be disseminated throughout the division. Time is saved by practice and experience and by including all possible details in the division SOP. Details of planning and executing marches are contained in FM 55-30, Army Motor Transportation Operations, and FM 101-10-1, Staff Officers' Field Manual; Organization, Technical and Logistical Data, Unclassified Data. For road movement in Europe, see appendixes B and C.

a. Preparation for a Tactical Motor March.--Preparation for movement requires that the force be organized into manageable movement echelons. Unit integrity is preserved as much as possible. When movement groups are composed of troops from more than one unit, a single commander is designated. Subgroupings consist of units under their own commanders. Preparation for the march normally requires the following steps:

(1) Issue a warning order.

(2) Make a map reconnaissance. Ground and air reconnaissance of the routes and the new area are made, when possible.

(3) Select (if not specified by higher headquarters) and clear routes.

(4) Designate the start point (SP) and release point (RP).

(5) Reconnoiter the route to the SP.

(6) Establish necessary liaison.

(7) Provide for maintenance, supply, evacuation, and refueling.

(8) Determine the order of march, rate of march, maximum speed of vehicles, distance or density, phase lines and control or checkpoints (if used), and halts.

(9) Provide for air, ground, and communication security.

(10) Issue strip maps when practicable.

(11) Dispatch advance parties, such as quartering and reconnaissance parties.

(12) Provide for traffic control.

(13) Determine communication channels to be used for control and any restrictions on their use.

(14) Issue the operation order.

b. Warning Order.--The warning order alerts units for the impending move. It is issued as soon as the first information concerning the move is received. Additional information of importance is disseminated as it is received. If the information is available, the warning order includes the destination, time and date of departure, purpose of the move, and other essential information. Subordinate commanders are given as much time and information as possible to make preparations, plans, and reconnaissance. The warning order normally is issued as a fragmentary order and may be either written or oral.

c. Reconnaissance of Routes

(1) The assignment of routes to subordinate units depends upon the mission of the unit, enemy capabilities, and the nature of the route. Consequently, all routes under consideration by the division should be reconnoitered. Speed of movement is closely related to the accuracy of reconnaissance.

(2) Reconnaissance units, air, military police, and engineers conduct route reconnaissance in conjunction with other functions. When a special need for route reconnaissance arises, these units, as appropriate, provide the specific assistance required. Prior location of critical points can prevent congestion and assist security preparations.

(3) The engineers and military police are responsible for the classification and marking of military routes which will be done in

accordance with FM 5-36, Route Reconnaissance and Classification, and FM 21-30, Military Symbols.

d. Selection of Routes

(1) The selection of routes is essential to success in marches, especially when the march is to be extremely long or is to be made during darkness or adverse weather.

(2) To reduce vulnerability to nuclear fires, the division uses multiple routes including cross-country routes. This allows moves to be completed more rapidly, provides dispersion, and aids security.

(3) When moving on multiple routes, elements of the division often use secondary roads. Care is exercised to assign routes that are suitable to the various division loads. Engineer support is provided if required.

(4) The mission is the overriding consideration in selecting routes for a tactical march. Military police are provided for control purposes during the move. Provision is made for the necessary engineer support to clear obstacles.

(5) When selecting a route, a commander ensures that all type vehicles in his column can negotiate the route. It may be necessary to march certain vehicles over separate routes. Adequate security, maintenance, and supply support are provided.

e. Planning Considerations

(1) The following calculations are involved in determining the time required to complete the move of the division:

(a) Preparation Time.--Preparation time is the time from receipt of the order to move until the first vehicle crosses the start point. Experience factors may be found in FM 101-10-1, Staff Officers' Field Manual; Organizational, Technical, and Logistical Data, Unclassified Data.

(b) Time Distance.--Time distance is the time required to travel between two given points (usually from the SP to the RP).

(c) Time Length.--Time length is the length of time required for a column to pass any given point.

(2) Determination of the time that the division can begin execution of a mission includes the time required to accomplish certain necessary tasks at the end of the march. These tasks include final reconnaissance, refueling, and movement to the line of departure. Units not needed immediately at the destination are not considered in the calculation of the time. The G-3 plans backward from the scheduled mission time beginning to determine the time that the division should commence movement.

(3) Tables, graphs, and other aids based upon the division's experience simplify movement calculations. The most important of these aids are:

(a) Table of simplified formula for road spaces and time length computations.

(b) Table of time lengths of columns for division units.

(c) Table of time distances.

(d) Table of average time factors.

(e) Road movement graphs.

(f) Road movement tables.

(g) March calculators.

(4) The vehicle availability status of divisional units changes frequently. Likewise, the organization for combat varies with the tactical situation and the mission. Consequently, commanders and staff officers must know the current status of vehicles. Each headquarters should frequently ascertain the status of vehicles of the next lower command echelon and determine the current time length and road space of each unit.

f. Designation of the Start Point

(1) The purpose of an SP is to provide all units of a march column a common point from which to start their movement. When more than one route is being used, an SP is designated for each route. The SP must be a place along the route of march which is easily recognizable on the map and on the ground and readily accessible, such as a road intersection. It should not be located in a defile, on a hill, or at a sharp curve in the road. An SP should be sufficiently distant from assembly areas to allow the march units to be organized and moving at the prescribed rate when they reach it. It should not be located to cause any element of a column to march to the rear or to march through another unit to reach it.

(2) Prior to starting a march, each major unit of a serial reconnoiters its route from the serial SP to the route SP and determines the exact time required to move this distance. Normally, the time that each serial will arrive at the route SP is specified by the division G-3 and published in the operation order. However, the serial commander must calculate and announce the times for major units of his serial to arrive at and clear a designated serial SP.

g. Designation of the Release Point.--The RP provides all units of a march column a common point on reverting to the control of their respective commanders. The RP should be easily recognizable on the map and on the ground and must be on the route of march. Unit guides meet their units as they arrive at the RP and lead them to the new areas. Multiple routes and cross-country movement should be employed from the RP to enable units to disperse rapidly. A route RP should not be located in a defile, on a hill, or at a sharp curve in the road.

h. Road Movement Graph.--A road movement graph is a time-space diagram used in planning and controlling marches and in preparing or checking road movement tables. It is a simple method of obtaining information to prepare a road movement table, and shows at all times the locations of the head and tail of each march serial. Figure 28 is an example of a road movement graph.

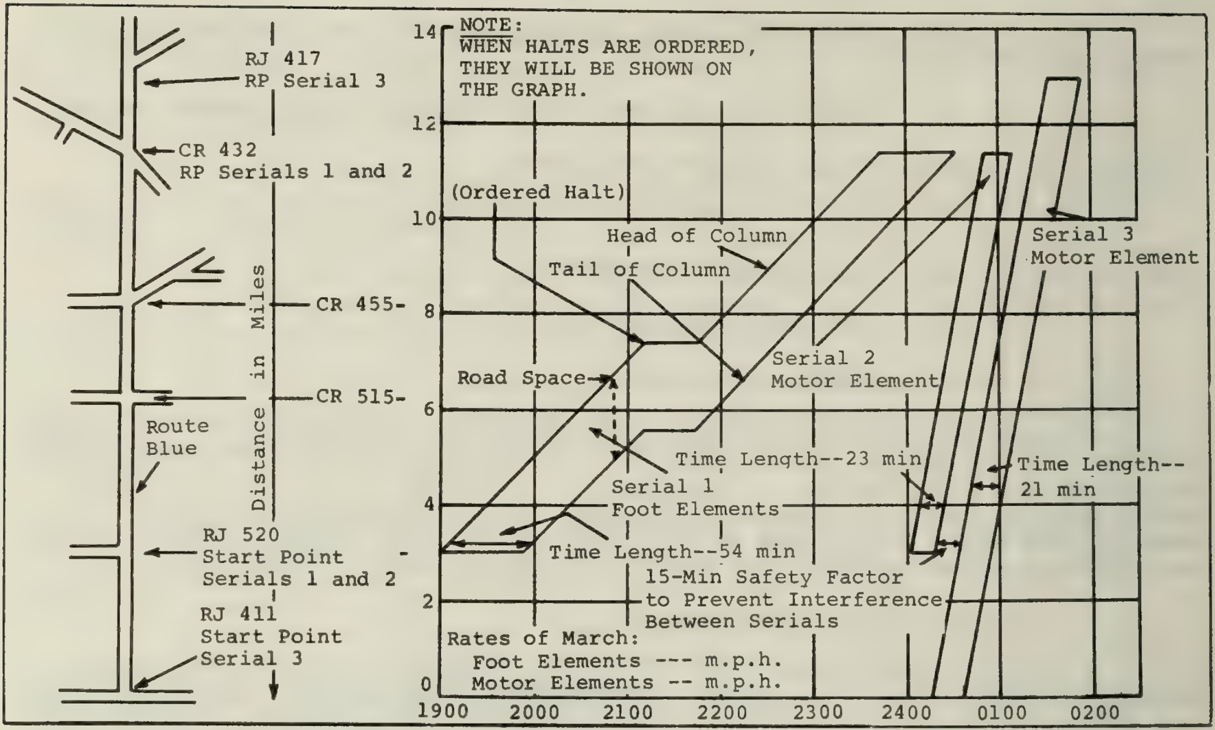


Figure 28.--Road Movement Graph.

Serial	Organization and Commander	No. of Vehicles	Load Class of Heaviest Vehicles	Present Location	Route	New Location	TL (Min)	Control of Movement			Remarks
								Location of Critical Points	Arrival Time	Clearance Time	

Figure 29.--Road Movement Table.

i. Road Movement Table.--(See fig. 29.)

(1) A road movement table normally is published as an appendix to the operations annex. The road movement table contains information and instructions concerning the march serials involved in the movement, including their serial numbers, rates of march, routes, SP's, times of corssing the SP's critical points, times of arrival at and departure from critical points, and other pertinent details. This information is usually obtained from an accurate knowledge of the status of routes and units from a road movement graph and from time and space calculations.

(2) It is generally difficult for a marching column to maintain a constant density and a uniform time interval between march units and march serials, while at the same time maintaining a set rate of march. Such factors as road space, rate of march, time interval, elapsed time, time lengths, and distance will vary somewhat from the calculated data even in well-disciplined and well-controlled marches. In formulating the road movement table, it is important to consider the state of training of units, weather, light, road conditions, the tactical situation, and to add a safety time factor to calculations if necessary.

(3) Loss of time and the creation of obstacles and radiological contamination caused by nuclear attack must be considered and alternate plans must be prepared for immediate execution. The margin of time required for moves will depend on the weather, terrain, experience factors, road conditions, and the enemy's nuclear capability.

j. Organization of the Column

(1) Whenever possible, elements should move in multiple columns, each organized to permit continuous movement. The following should be considered in planning the formation of the march elements and the order of march:

(a) Missions of the units upon arrival and the disposition which will best accomplish those missions.

(b) Present disposition of units.

(c) Routes available.

(d) Nature and extent of probable enemy interference.

(e) Difference in rates of march of various elements.

(f) Time interval between units on the move.

(g) Degree of probability that the enemy will employ nuclear weapons.

(h) Implications of movement conducted during hours of darkness or under conditions of limited visibility.

(i) Degree of flexibility and relative vulnerability of formation adopted.

(j) Degree of tactical control.

(2) March serials are organized as required by the tactical situation.

(3) The division executing a march is organized into march units and march serials or march columns.

(4) For information concerning vehicle densities of motor columns, see FM 101-10-1, Staff Officers' Field Manual; Organization, Technical and Logistical Data, Unclassified Data.

k. Rate of March

(1) The introduction of nuclear weapons increases the requirements for speed and precision of movement. Rates of march will vary with the local conditions. Mixed vehicles in column, wheeled and tracked, must travel at the optimum rates (not maximum speeds) of the slowest vehicles.

(2) Factors that determine the exact rate of march are:

(a) Grades, sharp turns, cities, towns, and other restrictions along the route.

(b) Surface conditions such as dust, ice, mud, and snow.

(c) Condition of drivers and crews to include training and experience.

(d) Condition of vehicles.

(e) Conditions that affect visibility.

l. Halts on the March

(1) See FM 55-30, Army Motor Transportation Operations, for details of time, duration, and frequency.

(2) A series of assembly areas are selected along all routes for dispersal of units during planned halts. Units move into these areas for refueling and relief halts and to clear blocked or contaminated roads when ordered to do so. Movement into and out of assembly areas is rigidly controlled by unit commanders. These areas should be easily accessible to the routes of movement and should be large enough to permit reasonable dispersion of battalion size units. Camouflage discipline in such areas is very important.

m. Refueling on the March.--Commanders make plans for refueling en route. Halts for refueling take place in selected assembly areas if possible. Sufficient fuel and lubricant supplies are carried in unit trains, obtained from supply points en route, or dispatched ahead of the movement to be on hand as required.

n. March Liaison

(1) Each march unit and serial establishes liaison with the preceding element in the column before crossing the SP. The liaison agent keeps his commander informed of the state of readiness of the preceding unit, delays that occur, and the time of departure of the preceding unit.

Unless radio or listening silence is imposed, liaison is normally accomplished by radio. When radio silence is imposed, wire and messengers (motor or aircraft) are employed. This type liaison minimizes last minute changes in march orders and enables each unit to start at the proper time. It also eliminates the premature removal of camouflage materials, unnecessary consumption of fuel, and fatigue to personnel.

(2) Division headquarters establishes liaison with higher headquarters to keep abreast of priorities on roads and critical points on the route of march. If there is a possibility of other units using or crossing the routes for movement of the division, liaison is established with these units at the earliest time possible.

o. Administrative Support

(1) Through timely coordination and planning, administrative support units provide for emergency repair, evacuation, and resupply on the move and after arrival at the destination.

(2) The combat service support units move independently, when practicable, and generally on one or more interior routes. They march to the location in a single move or displace by echelon.

p. Night Marches.--Enemy air and nuclear capabilities and the requirement for secrecy frequently dictate movement at night or under conditions of poor visibility. In general, night marches are organized and conducted in the same manner as day marches; however, reduced visibility places greater emphasis on control, security, liaison, and maintenance of direction. These aspects require careful prior reconnaissance, preparation, and suitable control measures.

q. Security

(1) General

(a) The division commander prescribes the security measures for the division.

(b) Reconnaissance units and air assist in providing security for the division. During a move involving the major portion of the division, these units are used actively under division control.

(2) Security During Movement to Contact

(a) Security Forces

1 The division advancing to contact normally is preceded by a covering force. The covering force can be directly under the control of the division commander or it can be provided by higher headquarters and retained under the control of that commander.

2 Each commander of a column, even though preceded by a covering force, also sends forward an advance guard to protect the main body from surprise and to ensure its uninterrupted march.

3 Flank and rear guards, operating directly under the column commander, protect the main body by operating to its flanks and rear.

(b) Security at Halts.--When a column halts for a short period, its advance, flank, and rear guards establish march outposts. If the command is required to halt for a long period, it secures itself by means of an interior guard for internal security and an outpost system disposed to cover its front, flanks, and rear. Each column organizes its own outpost system. The outpost system is organized from rear to front into reserve, supports, outguards, and sentinels. When important points outside the outpost system are to be secured, detached posts are established. The main body is disposed to counter enemy threats and facilitate the adoption of a predetermined defense.

r. Orders

(1) The operation order contains the instructions issued for the movement of units from one location to another within a stated period of time. This order is prepared after the completion of the necessary reconnaissance and an estimate of the situation. On occasion, the time available and the existing tactical conditions will not permit detailed planning or reconnaissance. Consequently, it is advisable for a division to have several march plans prepared in SOP form. These plans can then be modified by fragmentary orders to fit the given situation.

(2) Conditions and time permitting, information in the operation order includes destination, routes, rate of march, maximum speeds, order of march, SP's, time of crossing the SP's, details of air and ground alert guards, scheduled halts, distances, RP's, communications, location of the commander during the march, and strip maps. Additional details, such as route or unit markers to be used, control or checkpoints, and location of road guides, may be included if necessary. Certain items listed above often are standardized and included in the unit SOP. Items so included are not repeated in the operation order.

s. Strip Maps.--A strip map is a schematic sketch containing useful information of the route of march. A strip map should be included as an appendix to the operations annex. It is particularly useful to commanders of small units for organizational control. Strip maps are reproduced in quantity by the using units and supplied to key personnel, particularly to vehicle commanders, drivers, and route markers. Figure 30 is an example of a strip map.

t. Control

(1) The division commander establishes initial control of the march by designating in the order:

(a) The start and other critical points.

(b) The time at which the heads or the tails of columns pass these points.

(c) The rate of march.

(d) Time interval between units.

(e) The order of march.

(f) The routes of march.

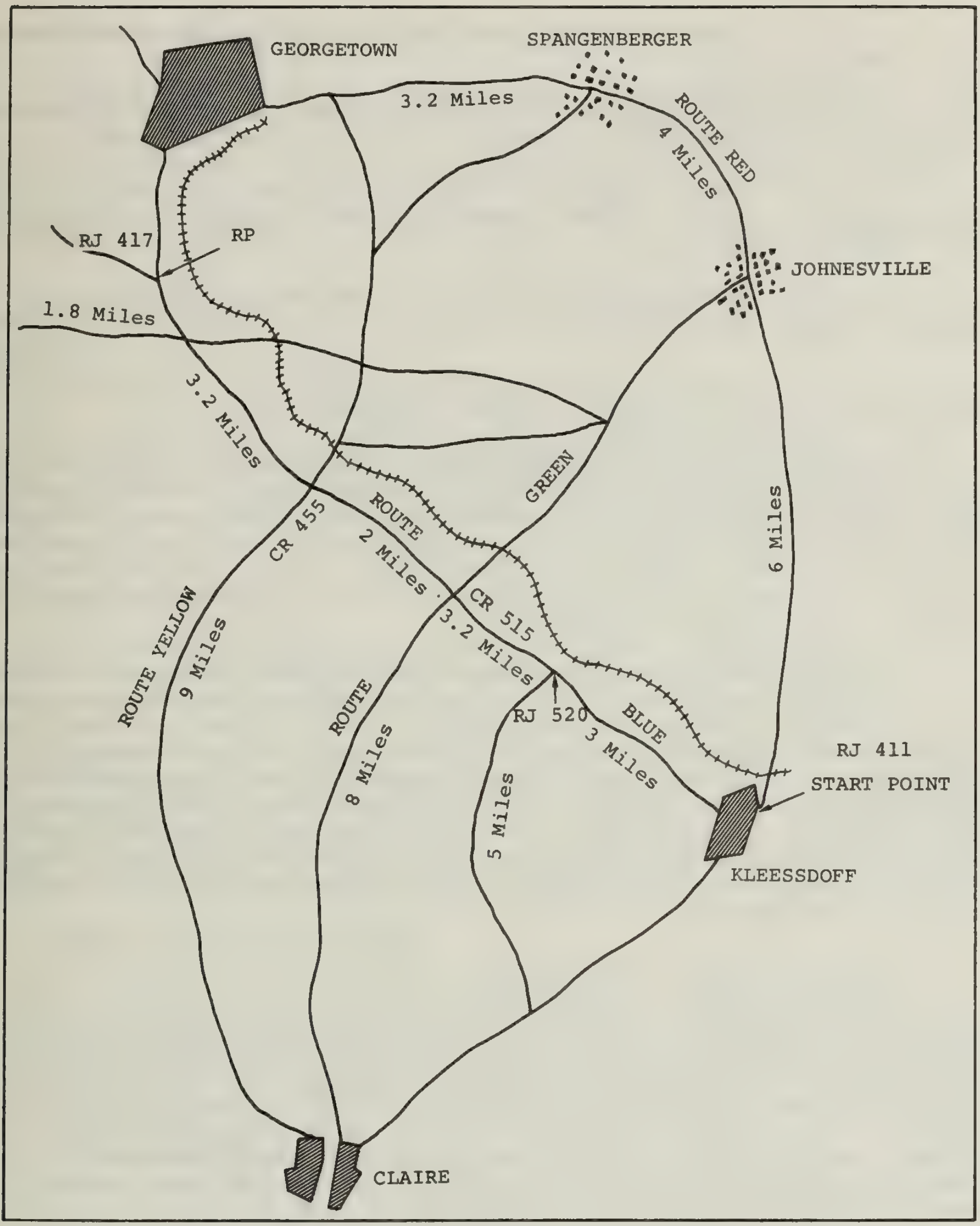


Figure 30.--Strip Map.

(g) The assembly areas.

(h) Phase lines and march objectives, if appropriate.

(i) The locations of his command post.

(j) Communications to be used for control of the march.

(k) Military police traffic control posts.

(1) Posting of military route signing (hazard, regulatory, or guide signs).

(2) The rapid movement of forces requires effective control. A movement plan or SOP should provide for:

(a) Establishment of unit priorities and control of the movement along the route. Routes must be clearly marked and vehicle operators thoroughly briefed.

(b) The granting of a clearance by the appropriate traffic headquarters prior to movement.

(c) A surveillance system to check unit locations and march dispersion and to assist in controlling the march.

(3) March discipline and adherence to march techniques are necessary to the maintenance of uninterrupted movement and reduction of the vulnerability of the division. The use of aircraft provides an efficient method for detecting and correcting violations. Consistent with tactical security this system is used to the maximum. Units identify themselves to aerial observers by displaying panels. Ground surveillance should be used to check and control columns.

(4) Efficient use of military police must be planned. Movement on multiple routes during periods of poor visibility and the existence of major intersections, defiles, and detours along routes increase traffic control problems. Minimum essential traffic control posts should be used. In conjunction with control posts and consistent with tactical security requirements, aerial and mobile ground control teams can be used with each column. The aerial control team can land and control situations until relieved by a ground control team. Additional military police support from higher headquarters should be requested when organic military police cannot handle the operation alone.

u. Control During Movement to Contact

(1) For control purposes, a large unit normally is assigned either objectives (to include intermediate objectives and phase lines), a zone, an axis of advance, or routes of movement. The commander also prescribes the time and place of departure of his column to produce the desired formation. Column commanders report promptly when objectives, phase lines, and checkpoints are reached and at other designated times. The imminence of contact with strong enemy forces and the terrain largely determine the degree of control established.

(2) In an advance, commanders are well forward in order to control the operation. The command post moves either by bounds or at a designated place in a column. When contact is imminent, the commander places increased emphasis on possession of terrain suitable for subsequent deployment of his command. Once a march has begun, variations in disposition or formation are accomplished by halting columns, changing the routes, or by modifying existing or prescribing new control measures discussed in subparagraph (1), above.

903. MOVEMENTS BY RAIL

a. General.--Movement of large bodies of troops by rail is normally more economical than by other forms of land transportation. Rail should be employed whenever possible. However, if only limited rail facilities are available, they should be used primarily to transport heavy equipment.

b. Responsibilities.--Troop movements by rail are joint responsibilities of the transportation agency and the division being moved.

(1) The transportation agency provides suitable transport equipment, loading and unloading facilities, and necessary technical guidance and supervision.

(2) The division provides its own internal administration and control. It prepares and implements loading plans in accordance with existing directives on rail movement, cooperating with the transportation agency. The division also provides housekeeping and local security troops to the transporting agency. For rail movement in Europe, see appendixes D through G.

c. Plans and Orders

(1) When directing the movement of the division by rail, an order will designate points at which the division will load and unload, time of departure, and desired time of arrival.

(2) The division commander is responsible for the preparation of plans and tables regulating loading. Details of the move are coordinated with the transportation officer of the area in which the move originates. A central transportation agency determines the routing. Contacts by the division with civilians or foreign government railroad personnel are usually made through the area transportation officer.

d. Organization for Movement

(1) The sequence in which elements are moved is determined by the mission, the availability of transportation, and the situation which will confront the moving unit at its destination. The assignment of units to entraining points is determined by availability of suitable loading facilities, material to be loaded, and proximity of elements to loading points.

(2) A transportation grouping consists of the troops, equipment, and supplies transported on one train. Transportation groupings are organized to obtain the most economical loading unless tactical considerations dictate otherwise. When tactical considerations govern, each combat element should be accompanied by its own equipment and supplies.

904. MOVEMENTS BY WATER

a. General.--Water transport is the primary means by which overseas operations are established and maintained. This transportation means is also of importance for intracoastal and inland waterway movement.

b. Movement to Overseas Areas

(1) Waterborne movements are characterized by a large capacity for personnel and tonnage, great range, and a high rate of movement. This

type of movement is especially vulnerable to attack by hostile air, surface and undersea forces. When there is a possibility of enemy attack, vessels are normally assembled in a convoy under naval command and provided with a naval escort to include air cover.

(2) Transportation to overseas areas will be provided by the Military Sealift Command or the U.S. Navy. The moving agency will provide the transports, supervise, and provide certain administrative support during the move. The division provides the same general support and assistance as set forth for rail movement in paragraph 903b(2).

c. Amphibious Operations.--Troop movements by water in an amphibious operation are highly specialized. LFM 01, Doctrine for Amphibious Operations; LFM 02, Doctrine for Landing Forces; and FMFM 4-2, Amphibious Embarkation; provide further information.

d. Intracoastal and Inland Waterway Movement.--Water transportation by the use of LCVP's, LCM's, LST's, and LVTP's are excellent means of moving troops and equipment between points on a coast where there are inland waterways. A direct route may be used by utilizing this type transportation thereby saving time. This type transportation is also very important with withdrawals. Detailed information in the employment of this type of transportation can be found in FMFM 4-2, Amphibious Embarkation, and FMFM 9-2, Amphibious Vehicles.

905. MOVEMENTS BY AIR

a. General.--Air movement is a means of transporting units rapidly into battle. It is also used to deliver troops, supplies, and equipment to a secured objective area or to an area inaccessible to other means of transport. Movement by air has the capability of rapidly overcoming distances and overflying geographical barriers. It is limited in its employment by a low tonnage and cubage capacity, and may be affected by adverse weather, inadequate landing facilities, and enemy counterair activities.

(1) Strategic.--The assault elements of a Marine division can be air transported quickly to any area throughout the world.

(2) Tactical.--The combat elements and many of the combat support elements are air transportable. The division takes full advantage of the tactical advantages of speed and mobility provided by the helicopter and fixed-wing aircraft in all phases of combat. For detailed information on the employment of helicopters, see FMFM 3-3, Helicopterborne Operations.

b. Air Troop Carrier Support

(1) Aircraft for strategic moves will normally be provided by the Military Airlift Command (MAC) or U.S. Air Force troop carrier wings. For more detailed information on air movement, refer to FMFM 5-1, Movement of Units in Air Force Aircraft; FMFM 5-1, Marine Aviation; and FMFM 5-3, Assault Support.

(2) Tactical assault support aircraft organic to the Marine aircraft wing are helicopters and aerial/assault transport aircraft. They are normally employed in support of the division. Control and communication facilities for employment of assault support aircraft are organic to the Marine aircraft wing.

SECTION 10

REAR AREA SECURITY

1001. GENERAL

a. The primary objective of rear area security is to prevent serious interference with the continuity of combat support and combat service support. A rear area is the geographical space within a command area where the bulk of combat service support functions are performed. Rear area security includes those measures and/or action taken to prevent, neutralize, or destroy localized enemy threats to units, activities, and installations in the rear. Enemy threats within the scope of rear area security operations may be conducted by guerrillas, small size counterlanding forces, infiltrated or stay-behind regular forces, small size airborne or helicopterborne forces, and saboteurs.

b. The situation will determine the means of providing rear area security. In an operation where the use of nuclear weapons is anticipated, the rear area installations are kept small and dispersed. This situation calls for a different approach than a situation where units can be grouped together such as in an operation where use of nuclear weapons is not anticipated. There is a third situation in which operations are conducted in a friendly country against guerrilla forces. In this type operation, rear area installations are grouped together the same as in operations where nonnuclear weapons are used; however, the approach to the security of the area may be different.

c. In any type operation, combat service support personnel must not only be trained in their primary duties but also in combat tactics and techniques. They must be mentally conditioned to expect a work and fight situation.

d. Rear area security is affected by the attitude of the civilian population in the area. It is important that the local populace be favorably impressed by the standard conduct of all units. Troops are oriented in their relations with the civil populace, the ideological and social customs of the country, and in respecting public and private property. Needless destruction of public and private property and abusive use of police and military power against civilians cannot be tolerated. Claim officers should be available throughout the area of operations for immediate settlement of claims when property is damaged or destroyed. A friendly, courteous, and considerate manner toward the population as a whole by all units in a country will have a direct bearing on rear area security problems. If this positive attitude is achieved, civil agencies and the civilian population will assist in the detection and control of guerrillas.

1002. CONCEPT OF REAR AREA SECURITY

a. In a situation where enemy use of nuclear weapons is not anticipated, combat service support units can be grouped together for mutual support. There can be two or three large areas where the numerous combat service units are located. In this way, mutual defense is achieved. Each area will have a commander responsible for its overall security. A defensive perimeter can be established and manned by combat service support personnel. Outside the defensive perimeter is established a belt of listening posts, observation posts, checkpoints, and patrols. This belt normally has a 300- to 600-meter radius from the defense perimeter. The area between installations beyond the defensive belt of each area is the responsibility of a tactical command. If the attacks against an installation become too great for combat service support units to overcome, assistance is requested from the tactical commander. When this occurs, the tactical commander is in overall command and is supported by the combat service support commander.

b. In operations conducted where the use of nuclear weapons is anticipated, rear area installations are kept small and dispersed. This will require each installation to establish a perimeter of defense and a belt of listening posts, observation posts, and patrols. The area between installations is the responsibility of a tactical commander. The tactical commander will not only have the mission of patrolling the area between the installations, but also be required to furnish immediate assistance to any installation coming under enemy attack. This is necessary since the number of combat service support personnel in each installation is small and has a limited capability to defend against attack. The overall commander at the time of an attack is the tactical commander, but he is supported by the combat service support commander.

c. The type rear area security necessary in operations conducted in a friendly country against guerrillas has to be flexible. One method that can be used is to place all combat service support units in one installation. This is in addition to those units located at the beachhead and at the air facilities in the area of operations. The location for this installation could be in, or in proximity to, a centrally located city with adequate road and/or railroad systems; or, if this is not possible, in a large centrally located clearing also having adequate road and/or railroad systems. The reasons for the use of a city is the availability of electricity, police force, road, railroads, and laborers. The more light available, the more difficult for guerrillas and saboteurs to operate. The security of power plants and powerlines is of primary concern to the commander of the installation. When utilizing a clearing, means should be available for lighting the area. The area itself is composed of two security perimeters. The internal perimeter is fortified and manned by combat service support personnel. Between this perimeter and the outer perimeter is an area cleared and mined. The outer area is composed of listening posts, police posts, checkpoints, and patrols operating to distances required to prevent a buildup of forces and equipment with which to attack the area. The outer perimeter is an ideal location for the use of local police and friendly national military and paramilitary forces. The area between this large installation, the beachhead, and the airfield would be the responsibility of a tactical commander. Once again, if the guerrilla activity is beyond the capability of the defending force, assistance is requested from the tactical commander.

d. As stated previously, operations in the rear area have no definite tactics or techniques which can apply to all situations. Therefore, rear area security requires maximum use of initiative and ingenuity in developing methods in the use of available personnel and equipment.

1003. RESPONSIBILITIES FOR REAR AREA SECURITY

a. Command arrangements and responsibilities for rear area security are based on a careful evaluation of the enemy's capabilities. As in all other aspects of rear area security, command arrangements are tailored to fit the anticipated situation, with sufficient flexibility retained for rearrangements should unusual contingencies develop. It is improbable that the rear area security problem in any two separate amphibious operations will have the same requirements. Accordingly, it is unnecessary, undesirable, and uneconomical to provide for an elaborate command arrangement to cope with relatively insignificant threats; on the other hand, to ignore the unity of effort required to meet a significant threat is to invite disaster. Within the rear area, all commanders are responsible for local security for their own units and installations.

b. Depending on the size and composition of the landing force, the size of the rear area, and the enemy capabilities, specific responsibilities in specific areas may be as follows:

(1) Commanders of installations and units in the rear may be made responsible for local security only, with overall responsibility retained by their parent tactical commander.

(2) The senior nontactical commander in the rear area may be assigned the overall responsibility for the control and coordination of the security of all units and installations in the area.

(3) A combat unit commander may be assigned overall responsibility for the control and coordination of the security of all units and installations in the area, and the conduct of active rear area security operations by the combat troops of his command.

(4) A combination of (2) and (3), above, may pertain; that is, the senior nontactical commander may be responsible for the passive and minor active rear area security effort. If a contingency for major active measures develops, a designated tactical commander would assume overall responsibility for the area.

(5) In all cases described above, the commander of the overall tactical area, the rear area being only a part, retains overall responsibility for security of the rear. He and his staff will devote attention

to the security of the rear as a matter of normal command and staff responsibility.

1004. TRAINING COMBAT SERVICE PERSONNEL IN REAR AREA SECURITY

a. It is an absolute necessity to train combat service support personnel in the fundamentals of combat tactics and techniques. Of prime importance is training in:

(1) Infantry weapons.

(2) Individual protection.

(3) Scouting and patrolling.

(4) Bayonet fighting.

(5) Hand-to-hand combat.

(6) Raids, riots, and guerrilla-type operations.

(7) Camouflage and light discipline.

b. Combat service support personnel must be mentally conditioned to the fact that they will work normal hours at their primary duties plus extra hours as infantrymen protecting their installations.

c. Combat service support personnel required to drive or travel by truck must also be instructed in means of defending and overcoming attacks and ambushes during movement from area to area.

d. Training is also conducted in the various aspects of counterintelligence.

e. Methods of identification and control of personnel and vehicles should be stressed. Indigenous personnel employed as laborers should be given a background investigation. No one other than those cleared should be allowed in protected areas.

1005. PLANNING PROCEDURES

a. Planning for defense of rear areas follows the same general procedures used in planning for other operations. In an amphibious operation, planning for rear area security commences early in the planning phase and continues throughout the operation. Based on the development of other plans and the input of up-to-date intelligence, rear area security plans are reviewed and revised as necessary. Security planning for the rear areas is concurrent at all echelons of the landing force. A significant rear area security threat, and the countermeasures planned, may influence other plans developed by the landing force. The scope of rear area security plans varies with each operation. Major planning considerations include the mission of the landing force, the estimated threat to the rear, the vulnerability of the rear, and the availability of troops for rear area security tasks.

b. When required, plans for security of the rear area are normally published as an appendix to the landing force operation plan.

c. Rear area security planning responsibilities of the commander landing force are:

(1) Coordination of the rear area security plan with other plans prepared by the landing force.

(2) Collection, processing, and dissemination of intelligence information pertinent to rear area security.

(3) Establishment of special command arrangements for rear area security, when required.

(4) Determination of special troop and equipment requirements.

(5) Assignment of subordinate unit responsibilities for rear area security.

(6) Determination and establishment of special passive and active security measures for rear areas.

(7) Determination of location and composition of rear area installations in order to provide continuous support to combat elements.

(8) Designation of boundaries and other control and coordination measures which affect rear area security operations.

(9) Preparation of the landing force area security plan.

(10) Posting of security detachments at critical defiles in the road net.

d. Rear area security plans are developed concurrently with operation plans; therefore, the operational environment is evaluated in terms of its total influence on the accomplishment of the mission from the standpoint of tactical operations, combat service support, and rear area security. Adequate, detailed, and timely intelligence is critically important. Intelligence operations and estimates seek to ascertain enemy capabilities to interfere with the accomplishment of the mission. Knowledge of these capabilities is the basis for measures to destroy or reduce the effectiveness of these capabilities. Such knowledge also permits the commander to judge the degree of casualties his command can accept and still accomplish its mission. This knowledge may be the deciding factor in selecting a course of action, locating installations, and making other related decisions.

e. The operational environment may be so significant in its influence on security of rear areas that the requirement for security may, in turn, significantly influence operational planning. Rear area security considerations may impose requirements on the commander in his decision making to include:

(1) Carefully weighing the enemy's nuclear capability and nuclear intent in determining the landing force dispersion/separation posture.

(2) Selecting tactical objectives which enhance security in the rear.

(3) Adopting a scheme of maneuver which gives consideration to rear area security.

(4) Arriving at a composition and time of landing of his reserve, if its employment as a rear area securing force on a contingency basis is contemplated.

(5) Formulating a plan of supporting fires which will provide fire support for rear area security operations.

(6) Determining the composition and location of aviation activities based on the type and degree of threat. Consideration must also be given to the feasibility of aviation support being provided from locations other than from within the beachhead.

(7) Providing special reconnaissance/surveillance forces and equipment for rear areas.

f. Rear area security plans must provide for flexibility in command arrangements, troop requirements, and security measures to meet a variety of contingencies which may occur after landing.

g. When required, rear area security plans provide for the following:

(1) Coordination of local security of installations and units.

(2) Relief of attacked installations and units.

(3) Route patrolling and convoy escorts.

(4) Reconnaissance and surveillance of the rear area and approaches thereto, including seaward approaches.

(5) Finding and destroying hostile forces operating in the rear areas.

h. In an operation other than amphibious, responsibility for planning should be assigned to a commander who will remain in the area. Economy of force, in executing defensive measures, requires that rear area defense plans provide for maximum utilization of all occupants of the rear areas, including properly screened indigenous personnel. Planning must include establishing rapid and adequate communication facilities to provide detailed and timely intelligence to the commander. Plans must also provide for adequate transportation for defending units to achieve satisfactory mobility and flexibility.

i. Based on the decision reached by means of the estimate of the situation, the commander develops his plan to accomplish his mission. The plan is expressed in terms of mission for elements of the command, and provides for coordination between elements in the execution of the overall plan. The plan prescribes the proper location of forces, their areas of zones of action, and their objectives.

j. Operational plans and orders are prepared and issued with appropriate annexes and appendixes. Existing plans and orders are subjected to continuous examination to ensure that changing conditions are reflected in current revisions.

k. In planning, consideration should be given to the use of the division reconnaissance battalion as a reconnoitering and coordinating unit in rear areas to provide adequate surveillance and security.

1006. FORCES AVAILABLE

a. The source, number of troops, and the size and composition of forces will vary according to the operational environment. Rear area security forces consist of:

(1) Combat service support units or elements thereof.

(2) Combat and combat support units specifically assigned rear area security missions.

(3) Friendly national military, paramilitary, and police forces.

b. Combat service support units or elements thereof are used for rear area security functions in addition to their normal duties. When the emergency warrants, they assist other installations or perform security tasks. Specific combat units, combat support units, and reserve elements of the assault forces are assigned the mission of assisting in security of the rear area. The type and size of the force depends on the characteristics and size of the area, enemy capabilities, and vulnerability of the rear area. In order to properly plan, execute, and support rear area security operations and conduct the necessary intelligence and counterintelligence functions, the commander of the force must have a complete staff.

c. Friendly national military, paramilitary, and police forces may perform duties in connection with rear area security to include physical labor. In such operations, indigenous forces can contribute in countering enemy guerrilla activity. The first priority in their training as counterguerrilla forces is in counterintelligence and intelligence functions necessary in counterguerrilla operations. The use of such forces will depend on their availability, capability, reliability, and the time available to the landing force to exploit their potential. Where extensive use of indigenous personnel in rear area defense is contemplated, plans must be made for their training, supply, and administration. In addition, when the operation is conducted in the national territory of an allied country, the interests and responsibilities of the friendly government figure prominently in the utilization of indigenous forces. Close coordination and cooperation is required between the commander landing force and appropriate representatives of the friendly government during planning and execution of the operation.

d. In emergencies, individual replacement drafts may be used to augment the forces required for rear area security. Such employment should be of such duration or scope as not to disrupt the replacement system.

1007. ORGANIZATION OF FORCES FOR REAR AREA SECURITY

In order to accomplish active rear area security missions, forces assigned or constituted for such operations must:

a. Have a high degree of mobility (ground, air, or both).

b. Be capable of accomplishing a variety of missions.

c. Be readily adaptable to a variety of missions.

d. Be able to react rapidly with the appropriate means to varied developments in the situation.

e. Possess effective communications.

f. Have access to the latest, most detailed intelligence of the area.

g. Be capable of achieving firepower superiority over expected hostile forces.

1008. COMMUNICATIONS FOR REAR AREA SECURITY

a. Communication requirements and systems employed in rear area security vary. The variations extend to the scale of the communication effort as well as to the type units charged with the responsibility of providing communications.

b. Usually units will utilize the communication facilities normally available. However, there may be occasions when these facilities are not adequate and must be augmented as necessary by higher headquarters.

1009. DEFENSE OF THE BEACH SUPPORT AREA (BSA)

a. The division commander ashore will normally assign the mission of defending the BSA, as a defined portion of the rear area, to his shore party commander. The shore party commander may require combat units to assist in this mission.

b. In the defense of the BSA, precautions are taken to defend against the following:

(1) Air attacks.

(2) Mechanized attacks.

(3) Airborne and helicopterborne attacks.

(4) Guerrilla action and infiltration.

(5) Nuclear, chemical, and biological attacks.

c. A major concern in defending the BSA is the threat of enemy counterlandings. The threat increases as the attack advances inland.

d. Defense against a waterborne counterlanding will include:

(1) Coordination with naval forces.

(2) Day and night air-ground reconnaissance and patrolling.

(3) Employment of all available means in the beach support area in an effort to defeat the enemy before or while landing.

(4) In the event of a successful enemy landing, vigorous offensive and defensive measures will be employed by combat support, combat service support and air units, to destroy the enemy.

(5) A counterattack plan prepared by the tactical commander responsible for the rear area.

(6) Emplacement of antiboat obstacles.

e. Defense against airborne counterlandings will include:

(1) Maximum effort by antiair weapons to destroy the aircraft while it is airborne or landing.

(2) Placing obstacles and mines in possible landing sites.

(3) Reconnoitering critical air landing areas by the use of patrols, observation posts, and air reconnaissance. Counterattack plans are prepared by the tactical commander responsible for the area.

1010. SECURITY OF THE COMMAND POST

a. In the selection of the location for the command post, consideration must be given to the general defensive measures to be taken in the event the command post comes under direct attack. This may include assigning a tactical or supporting unit an additional mission of furnishing general defense for the command post.

b. Local security of the command post installation is the responsibility of the headquarters commandant. The basic security organization of the Marine division is built around the security platoon and the band of the headquarters company, headquarters battalion supplemented by personnel serving in the various staff sections, communications, and service installations. While personnel engaged in staff activities and in operating communications will not be available to augment the security force in its routine operations, they must be organized and prepared to participate in command post security when the requirement becomes sufficiently urgent.

c. Passive security measures for the command post against enemy visual and direct detection is accomplished by careful choice of terrain for the command post installation. An area of irregular, well-forested ground hampers aerial observation, and if it includes high brush and low trees as well, enemy ground observation is more difficult. Most important of all is individual camouflage discipline which must be enforced.

d. Additional passive measures include the following:

(1) Installations should be dug in, with overhead cover constructed whenever possible.

(2) Rigid traffic control is practiced. Vehicles are allowed to enter the command post only when required. Passenger drop and pickup points should be concealed from direct observation. Vehicles should be parked in designated areas within the local security perimeter of the command post. Existing roads should be utilized whenever possible to conceal the actual location of the command post. Whenever vehicles are required

to leave an existing road in the vicinity of the command post, their routes of movement should be concealed by existing trees or by artificial camouflage.

(3) During command post displacements, every effort should be made to conceal the move. When helicopters are employed in the displacement, the route utilized should conceal their movement to the location of the new command post. The fires of supporting arms may be programmed to coincide with the command post movement, so as to divert attention.

(4) Communication equipment is located at the edge of the command post within the security line.

(5) Positive deceptive measures should be taken to conceal routine helicopter message center runs. These runs should operate on a staggered time schedule and may originate from several helicopter landing sites.

1011. SECURITY OF THE LOGISTICS SUPPORT AREA (LSA)

The development of the plan for local defense of the LSA's is the responsibility of the commander. Duties of the LSA commander with respect to local defense and security include the following:

a. Assignment of local defense and security missions to units within the LSA.

b. Coordination of defense plans that provide all-round local defense and security.

c. Assignment of position areas within the LSA that take advantage of protective terrain, cover, and concealment.

d. Designation of forces to be employed as a reserve.

APPENDIX A

DIVISION ORGANIZATION

1. PRIMARY MISSION

To execute amphibious assault operations and such other operations as may be directed, supported by Marine aviation and force troops units.

2. CONCEPT OF EMPLOYMENT

The Marine division is employed in conjunction with a Marine aircraft wing, as an integral part of a Marine amphibious force in amphibious operations and in land operations ashore under conditions of limited or general war. It is organized and equipped for operations under the threat of NBC warfare. The division requires combat support from elements of force troops and combat service support elements of force service support group for sustained operations ashore.

3. LOGISTICS CAPABILITIES

a. The maintenance function within the division is performed by subordinate units to the level stipulated in each unit's table of organization. Maintenance beyond that level will be performed by the maintenance battalion, FSSG.

b. Subordinate organizations of the division are equipped with a limited number of vehicles to support combat operations. General motor transport support is provided by the truck company, headquarters battalion.

c. The functions incident to the requisition, storage, issue, and distribution of all classes of supply to sustain division units in combat are provided by the force service support group as a direct result of unit demands placed directly with this organization.

4. ORGANIZATION

The organization of the Marine division is shown in figure 31.

a. Headquarters Battalion.--(See fig. 32.) The primary mission of the headquarters battalion is to exercise command, control, and administration of a Marine division. The headquarters company provides command, administrative, and security functions for the headquarters battalion, band support for the division, and chaplain service to those units of the division that do not have organic chaplains. The headquarters company includes the sensor control and management platoon (SCAMP), photo imagery interpretation unit, and the interrogator-translator teams (ITT) of the division. The service company provides organic supply and motor transport support for the headquarters battalion and reproduction and photographic support for the division. The military police company provides beach and traffic control, prisoner of war stockade guard, general guard duty, and local security for a division. The truck company provides general support motor transport to the a division. The communication company installs, operates, and maintains communication facilities for division headquarters, including radio, multichannel radio,

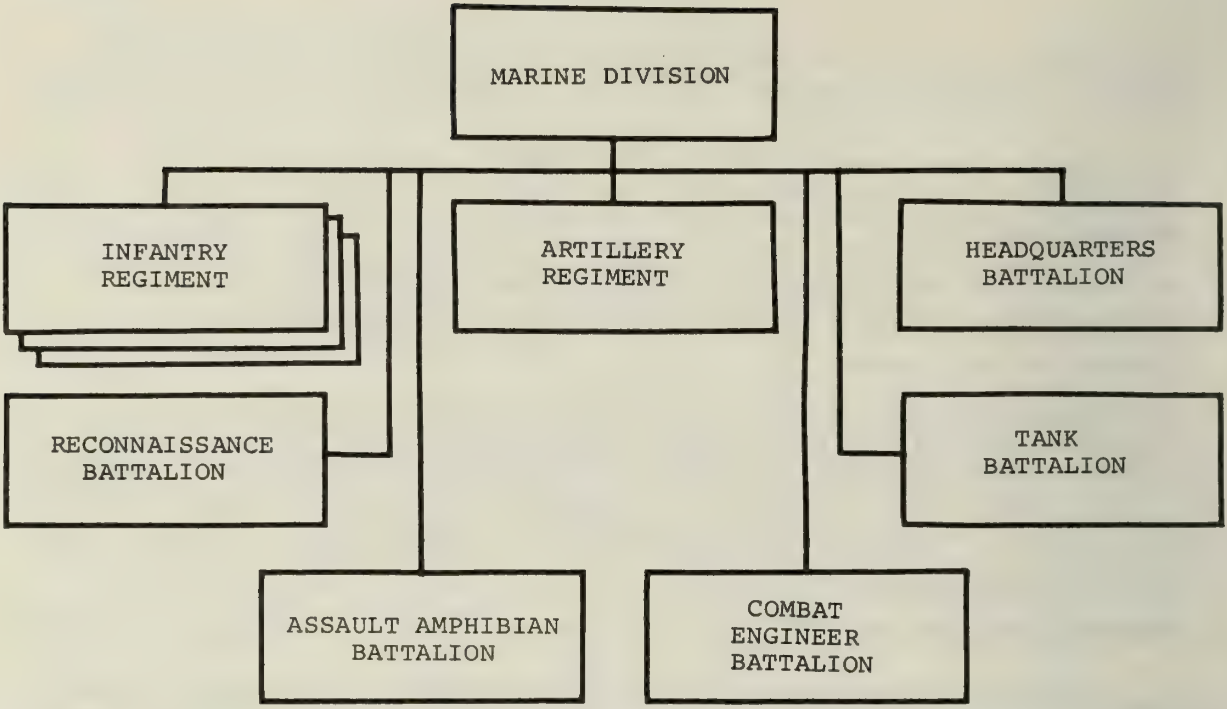


Figure 31.--Marine Division.

wire and communication center facilities at the division command post, and the administrative command post, and between the division command post, the alternate command post, and the next lower echelons of the division. The alternate division command post will be located at the artillery regimental command post and will be manned by the assistant division commander. The administrative command post is located in a separate area to the rear.

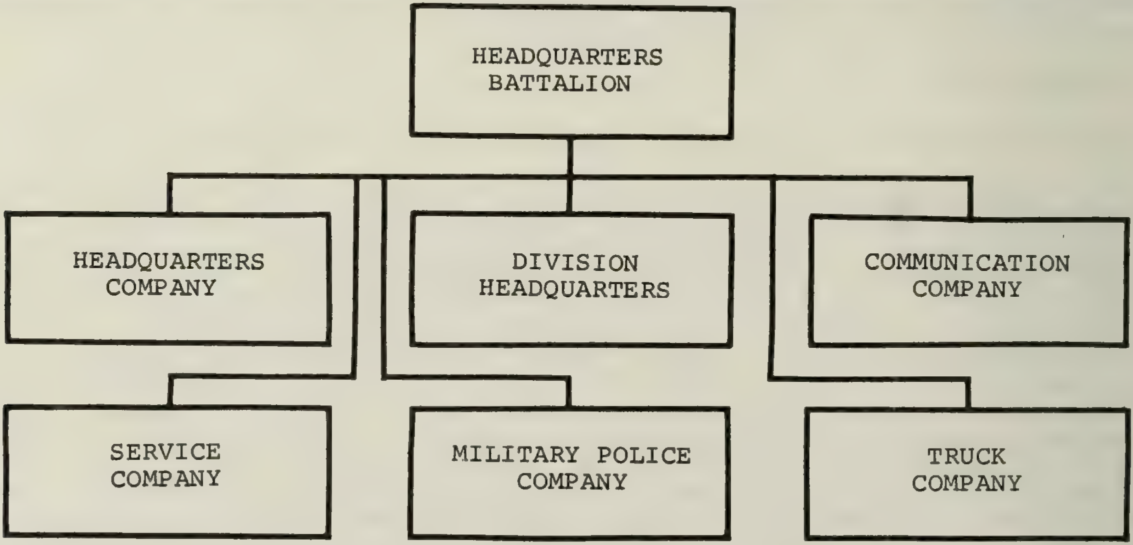


Figure 32.--Headquarters Battalion.

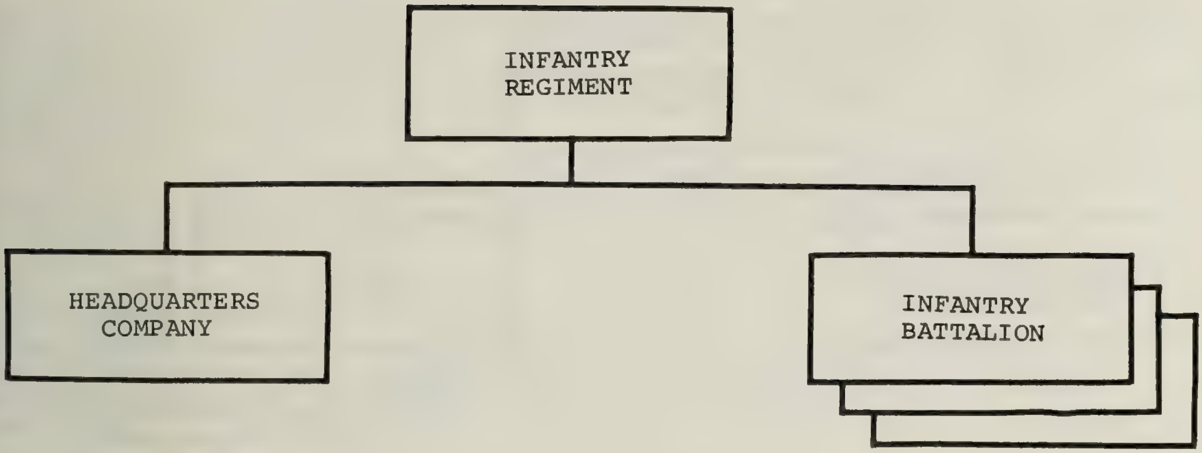


Figure 33.--Infantry Regiment.

b. Infantry Regiment.--(See fig. 33.) The primary mission of the infantry regiment is to locate, close with, and destroy the enemy by fire and maneuver or to repel his assault by fire and close combat.

(1) Concept of Organization.--The infantry regiment consists of a headquarters company and three infantry battalions. The infantry battalions are the basic tactical units with which the regiment accomplishes its missions. When combined with other combat support and combat service support units, it will form a regimental landing team. Command and staff functions for the regiment are exercised through a compact operational command group consisting of the commander and an executive staff. The staff is capable of integrating the efforts of attached and supporting units. The staff can support an alternate command post during displacement. The basic means of ground mobility of the regiment is by foot, supplemented by small, lightweight vehicles for the transportation of electronics equipment, weapons, and limited amounts of ammunition and supplies. All elements are helicopter transportable and are compatible with other means of transportation (amphibious vehicle, motor transport, fixed-wing aircraft, and ships).

(2) Concept of Employment.--The infantry regiment is the major element of close combat power of the Marine division. The regiment with appropriate attachment is capable of independent, sustained operations.

(3) Logistics Capabilities.--There is no regimental level capability of providing maintenance for subordinate elements. Subordinate elements are capable of performing organizational levels of maintenance as stipulated in their table of organization. The chain of medical evacuation does not include the regimental echelon. The regimental medical section provides technical supervision and coordination of all medical activity within the regiment. The medical platoon of each subordinate battalion is capable of administering emergency treatment and preparation for evacuation, by means provided from external sources, of casualties requiring hospitalization. Subordinate units of the regiment are equipped with a minimum number of

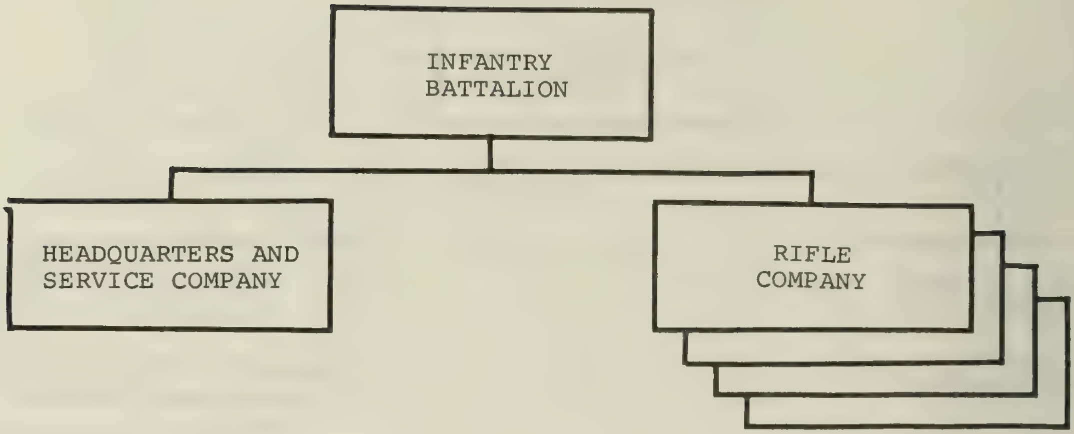


Figure 34.--Infantry Battalion.

vehicles to support combat actions. Vehicular transportation consists of small, lightweight, general purpose vehicles, all helicopter transportable. When required, a light helicopter is provided to the regimental commander on a daily basis for command, liaison, and observation purposes. The regiment does not provide supply support to subordinate elements. Supplies are provided by supporting combat service support elements direct to using units, including the headquarters company of the regiment.

c. Infantry Battalion.--(See fig. 34.) The primary mission of the infantry battalion is to locate, close with, and destroy the enemy by fire and maneuver, or to repel his assault by fire and close combat.

(1) Concept of Organization

(a) The infantry battalion consists of a headquarters and service company and four rifle companies. The rifle companies are the basic tactical units with which the battalion accomplishes its mission. When the battalion is combined with combat support and combat service support units, it forms a battalion landing team.

(b) Command and staff functions are exercised through a compact operational command group consisting of the commander and executive staff. The staff is capable of integrating the efforts of attached and supporting units, utilizing representatives of these elements provided for this purpose. The staff is capable of supporting an alternate command post during displacement. All fires in support of the battalion are coordinated under the staff cognizance of the operations officer. Advice in fire support coordination matters is provided by liaison personnel from supporting or attached units.

(c) In addition to individual weapons, the organic battalion firepower consists of medium mortars, direct fire assault/antitank guided missiles, and flame weapons capable of supporting the rifle companies.

(d) The basic means of mobility is by foot, supplemented by use of organic, small, lightweight vehicles for the transportation of electronics equipment, weapons, and limited amounts of ammunition and supplies. All elements are helicopter transportable and are compatible with other means of transportation (amphibious vehicle, motor transport, fixed-wing aircraft and ships).

(e) Logistics capability is compatible with the mobility and combat power of the battalion. The battalion is structured on the basis of unit distribution of supplies to and within the battalion.

(2) Concept of Employment.--The battalion is the basic tactical unit of ground combat power and the nucleus of the BLT. As a balanced firepower and maneuver team, it attacks and destroys all targets in the assigned area of responsibility. With attachments, it is capable of independent, sustained operations for periods of several days as permitted by combat conditions. It is capable of conducting a coordinated deliberate defense.

(3) Logistics Capabilities.--The battalion performs organizational maintenance as prescribed in their tables of organization; provides emergency treatment and preparation for evacuation, by external means, of all casualties requiring hospitalization; provides a battalion aid station for treatment of minor illnesses and injuries; and exercises technical supervision of measures for the prevention and control of disease. Transportation means organic to battalion consists of small general purpose helicopter transportable vehicles for command, communications, medical, and crew-served weapons. When required, a light helicopter is provided to the battalion commander on a daily basis for command, liaison, and observation purposes. The battalion supply unit carries limited resupply for the companies preloaded on platform vehicles and maintains a limited level of supply within the battalion supply unit.

d. Artillery Regiment.--(See fig. 35.) The primary mission of the artillery regiment is to provide fire support to the Marine division in the amphibious assault and subsequent operations ashore.

(1) Concept of Organization.--The artillery regiment consists of a headquarters battery and three artillery battalions. Responsibilities are discharged through a command group consisting of the commander and an executive staff augmented by sufficient technical personnel. The staff is capable of integrating the efforts of any attached, reinforcing, or supporting units. The staff is capable of supporting an alternate command post during displacements and when augmented and operate as an alternate division command post for short periods of time. The basic means of ground mobility is organic vehicular transportation. All headquarters elements and howitzer batteries are helicopter transportable. Although there is no longer a 4.2-inch mortar organization in the artillery regiment, each regiment will maintain six of these weapons for training and possible contingencies.

(2) Concept of Employment.--The artillery regiment is the primary source of fire support for the Marine division. The regiment operates well deployed in order to provide direct and general fire support to front line units. Its operations and actions are closely integrated with those of the infantry in order to be responsive to rapidly changing radical situations. The artillery regiment provides a fire support coordination section to assist in establishing and operating an FSCC at the division command post.

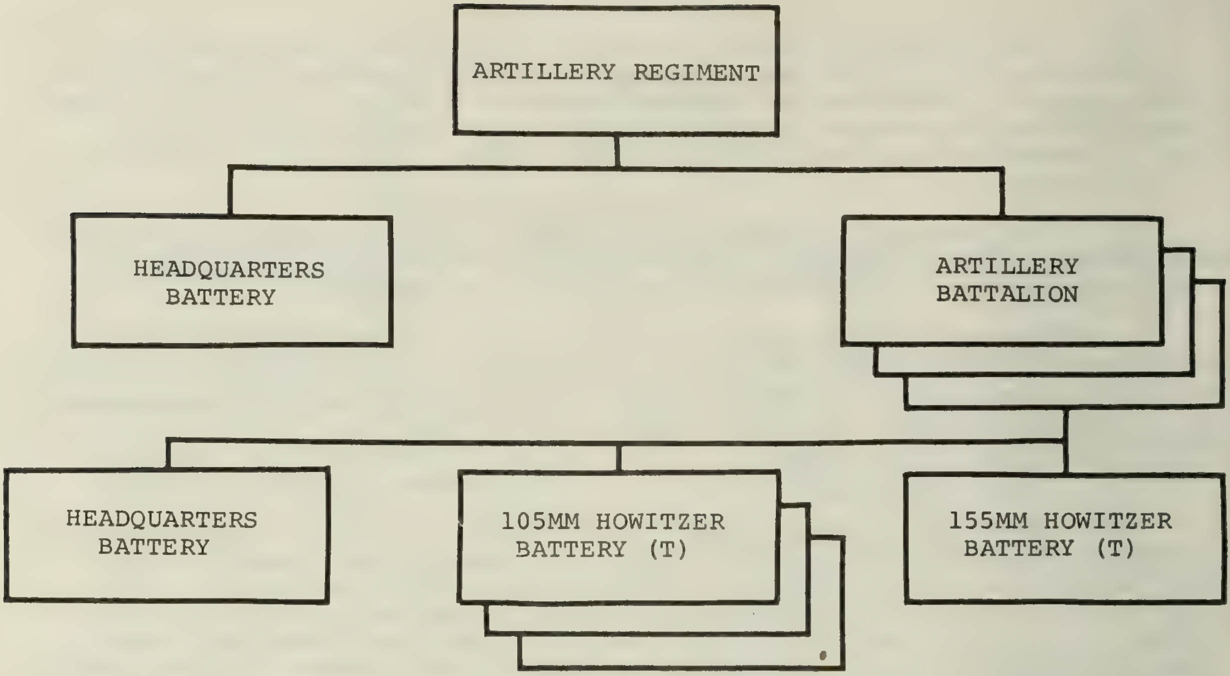


Figure 35.--Artillery Regiment.

(3) Logistics Capabilities.--The regiment is capable of moving itself by organic vehicles. All essential command elements and the towed artillery batteries can be transported by helicopter.

(4) Artillery Battalion.--The artillery battalions provide a source of rapidly responsive close and deep support to units of a Marine division. The battalion exercises tactical, and when feasible, technical fire direction in maneuvering and massing the fires of its batteries. Each battalion is organized with a headquarters battery, three 105mm howitzer batteries, and a 155mm howitzer battery. There are six artillery sections in each firing battery. The battalions provide supported infantry commanders with the basic means required to coordinate the fires of all supporting arms. The firing batteries of the artillery battalion are capable of decentralized fire direction when necessary.

e. Reconnaissance Battalion.--(See fig. 36.) The primary mission of the reconnaissance battalion, Marine division is to conduct ground reconnaissance and surveillance in support of a Marine division or its subordinate elements. The battalion consists of a headquarters and service (H&S) company and four reconnaissance companies. When the battalion is at full table of organization (T/O) strength, it can field 48 four-man scout teams. The concept of operations of the battalion emphasizes directed reconnaissance rather than passive surveillance. The battalion is not equipped for decisive or sustained combat and must accomplish its mission through stealth, maneuver, and rapid reporting. Maximum effectiveness is achieved by employing the battalion as a unit directly under field control. However elements of the reconnaissance battalion may be attached to or in support of subordinate units of the division or task organized MAU's and MAB's. Such employment

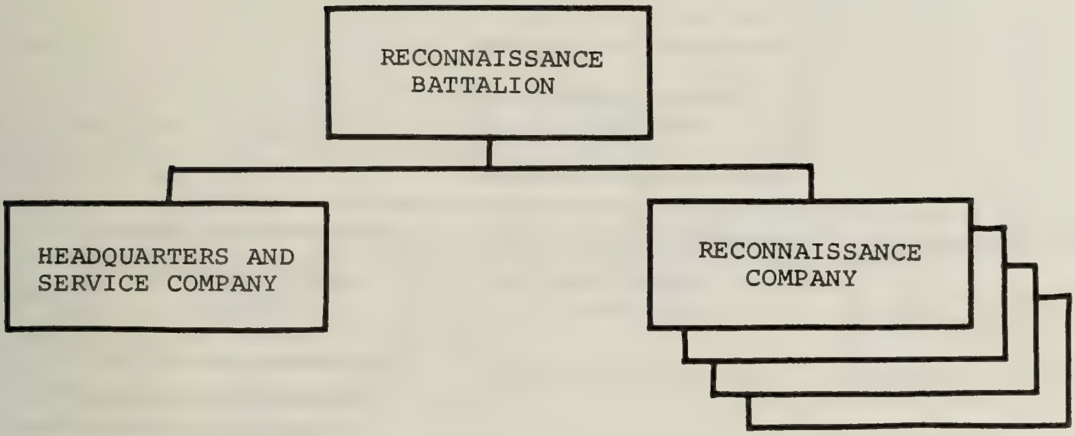


Figure 36.--Reconnaissance Battalion.

is normally required when a division unit is on an independent mission or when the area of responsibility or zone of action assigned presents a reconnaissance requirement beyond the organic capability of the infantry. Extensive use of helicopters is envisaged to provide the high degree of mobility necessary for reconnaissance activity in both limited and general warfare. Each of the reconnaissance companies is capable of being lifted in its entirety by helicopter. The battalion has capability to conduce amphibious reconnaissance.

f. Combat Engineer Battalion.--(See fig. 37.) The primary mission of the combat engineer battalion is to render close combat engineer support to a Marine Division.

(1) Concept of Organization.--The combat engineer battalion consists of a headquarters and service company, engineer support company, and four combat engineer companies. The H&S company consists of elements to provide the battalion commander with facilities for command and control functions, and communication support for subordinate elements of the battalion. The engineer support company consists of a company headquarters, equipment platoon, utilities platoon, and a motor transport platoon. Four combat engineer companies are included in the battalion's organization to provide support to the infantry regiments and other division units as required. Each of the combat engineer companies consist of a company headquarters and three combat engineer platoons.

(2) Concept of Employment.--The combat engineer battalion will provide tactical engineer support to the division. It is organized to provide one combat engineer company in support of infantry regiment and associated task elements, and one combat engineer company to support rear area organizations. The latter also provides the flexibility to augment the combat engineer companies in the forward areas as required. Operations of those companies supporting forward elements will generally be decentralized. Engineer support requirements to the rear of forward elements will be performed under centralized engineer battalion control. The engineer support

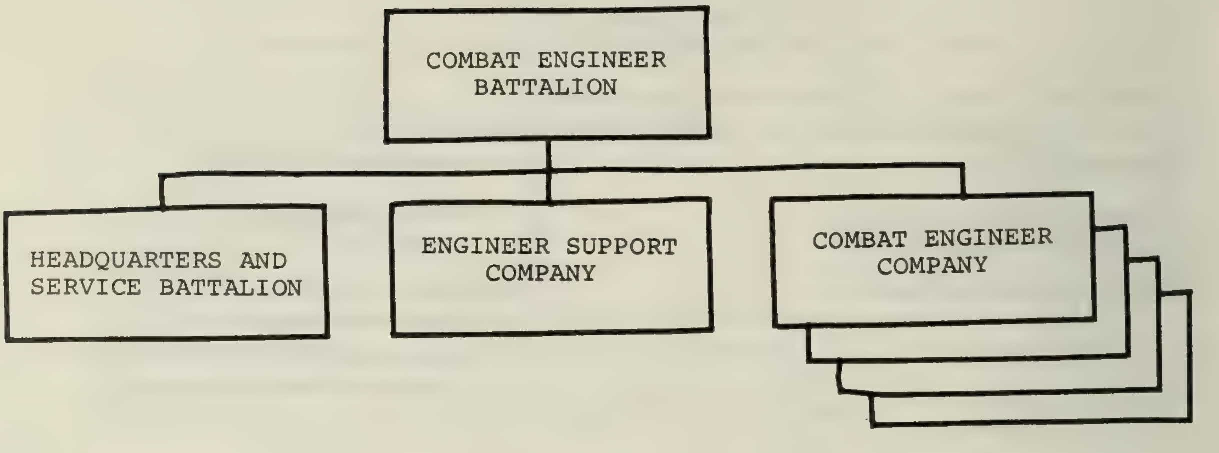


Figure 37.--Combat Engineer Battalion.

company provides augmentation in the form of personnel and specialized engineer equipment to the combat engineer companies. The organization and equipment of the combat engineer battalion is based upon the criteria listed below:

(a) The fact that construction support normally will be limited to essentials, temporary in nature, and designed to minimum standards to meet combat requirements.

(b) The requirement to provide utilities support in the areas of water supply and other hygenic services for the Marine division.

(c) The fact that supply support within the Marine division will be only partially dependent upon ground transport, a factor that precludes the need for an organic capability to prepare a complete road net for support of all division units.

(d) The following specific functions are a responsibility of the engineer battalion:

1 Engineer reconnaissance within the division zone of action or sector of defense.

2 Temporary repair of existing roads and limited new construction of engineer roads, including essential maintenance of such installations for moderate logistics traffic. Except under unusual conditions, this activity generally will be limited to the division logistics support area.

3 Erecting standard prefabricated fixed and floating bridges. Supervisory personnel and bridges are provided by the engineer support battalion, FSSG.

4 Constructing engineer type timber bridges from local materials when available.

5 Constructing and operating rafts.

6 Reinforcing, repairing, and maintaining existing bridges.

7 Constructing and positioning obstacles requiring special engineer equipment or technical skills.

8 Supervising the placement of extensive minefields and booby traps.

9 Furnishing technical and mechanical assistance for the contstruction of cut-and-cover type temporary fortifications.

10 Performing specialized demolition missions beyond the capability of infantry elements.

11 Providing specialized assistance in breaching obstacles, including mines, from the high water mark inland.

12 Supervising extensive or sensitive minefield clearance.

13 Supervising specialized camouflage operations, primarily concealment and deception measures, of major significance to the division as a whole.

14 Providing and operating water points, bath units, and other hygiene services for the division.

(3) Administrative Capabilities.--The combat engineer battalion is capable of self-administration.

(4) Logistics Capabilities

(a) Maintenance.--The battalion is capable of organizational (second echelon) maintenance on organic infantry weapons and communication equipment.

(b) Medical.--Medical services are consolidated at the headquarters and service company of the battalion.

(c) Transportation.--The battalion has organic transportation incident to the accomplishment of its stated mission.

(d) Supply.--The battalion is capable of providing organic supply support.

(e) Messing.--Capabilities are consolidated in the headquarters and service company of the battalion.

g. Tank Battalion.--The mission of the tank battalion is to provide combat support to the Marine division in the amphibious assault and subsequent operations ashore, utilizing fire and maneuver, mobility, armor protected firepower, and shock action to close with and destroy the enemy, his material, and his fortifications.

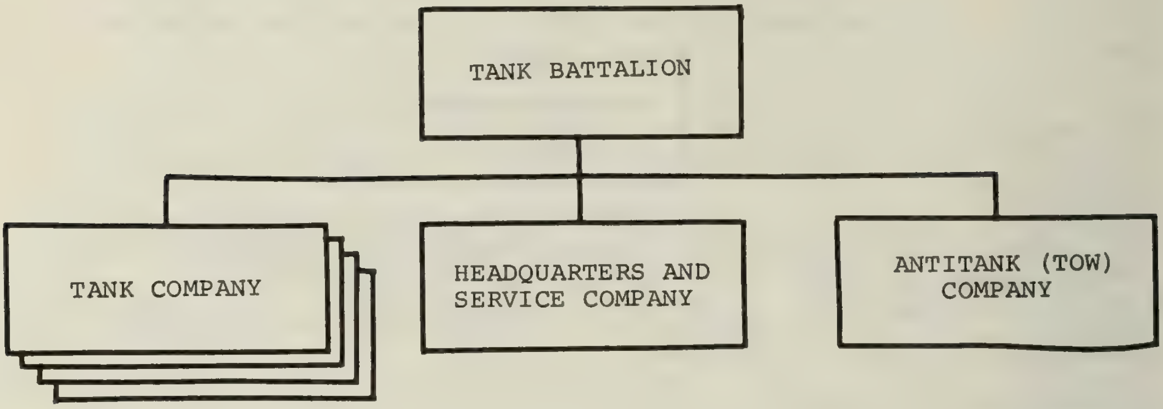


Figure 38.--Organization of the Tank Battalion.

(1) Concept of Organization.--The organization of each tank battalion (see fig. 38.) will be prescribed by the current Table of Manpower Requirements (T/MR) for that particular battalion. The basic composition consists of a headquarters and service company, four tank companies, and an antitank (tube launched, optically tracked, wire command link guided missile system (TOW) company. The tank companies and the antitank (TOW) company are the primary tactical units with which the battalion accomplishes its mission.

(a) Headquarters and Service Company.--The primary mission of the H&S company is to provide the battalion commander with the facilities for effective command and control and to provide service support for subordinate elements of the battalion. The company is organized into functional groupings as follows (see fig. 39).

1 Battalion Headquarters.--The battalion headquarters provides the commander with the personnel to coordinate the action of the battalion. It contains the headquarters section with its command and staff element, the communication section, chaplain section, and the medical section. A gun tank section (two medium tanks) is included to provide the commander with a mobile command post.

2 Motor Transport Platoon.--The motor transport platoon provides the motor transport equipment required by the H&S company and the technical assistance and cargo and special purpose vehicles required by the tank companies. The motor transport platoon provides its own first and second echelon maintenance support.

3 Maintenance Platoon.--The maintenance platoon provides the maintenance support for tracked vehicles of the battalion. It is organized and equipped for centralized operations in support of the entire battalion. The quality and quantity of the battalion's maintenance capability is reduced when detachments of maintenance personnel and equipment accompany tank units supporting infantry.

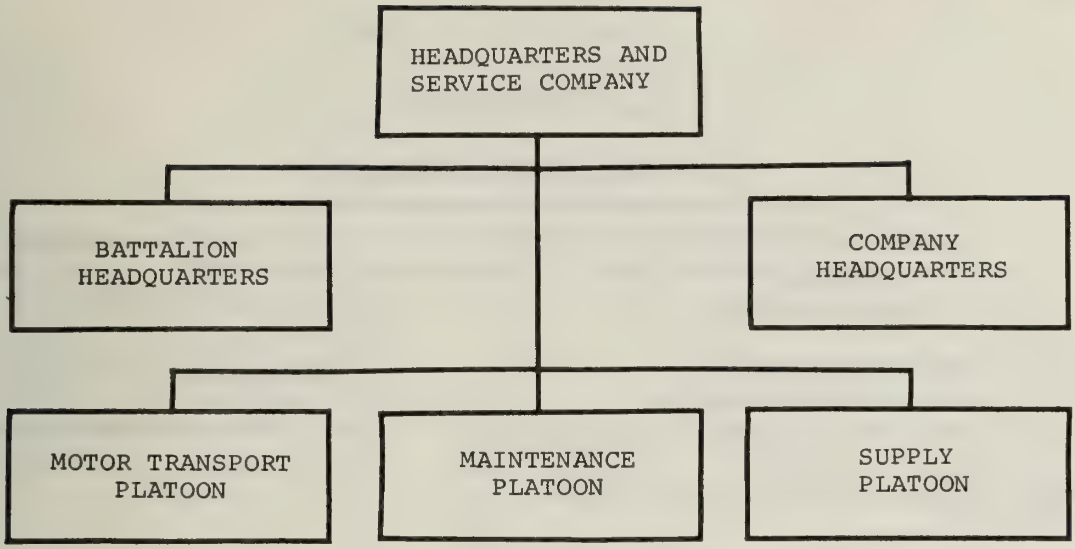


Figure 39.--Organization of the Headquarters and Service Company.

4 Supply Platoon.--The supply platoon provides the supply support for the battalion.

5 Company Headquarters.--The company headquarters provides the administrative and logistics support for the various units of the company.

(b) Tank Company.--The mission of the tank company is to provide combat support for Marine infantry units utilizing mobility, firepower, and shock power to close with and destroy enemy forces, fortifications, and material. The tank company is normally employed either by assignment of a tactical mission of direct support or by attachment. The tank company may also be employed separately or under the direct control of the tank battalion commander for independent tank operations. The company has a limited logistics capability. However, when transportation is augmented from assets of the tank battalion, it is capable of transporting a basic allowance of ammunition and can handle its own distribution of supplies. Medical support is provided either by attachment of medical personnel from the tank battalion or through utilization of medical facilities of the supported unit. Each company is composed of a headquarters and three tank platoons. (See fig. 40.)

1 Company Headquarters.--The company headquarters is composed of a tank section (two tanks) and a headquarters section containing administrative, communication, logistics, reconnaissance, and liaison personnel. The logistics personnel and equipment include maintenance personnel for organizational maintenance and one tank recovery vehicle to assist in the recovery of disabled tanks.

2 Tank Platoon.--The tank platoon is composed of five medium tanks. It is capable of being organized into sections dependent on mission assigned. Tanks are not employed singly.

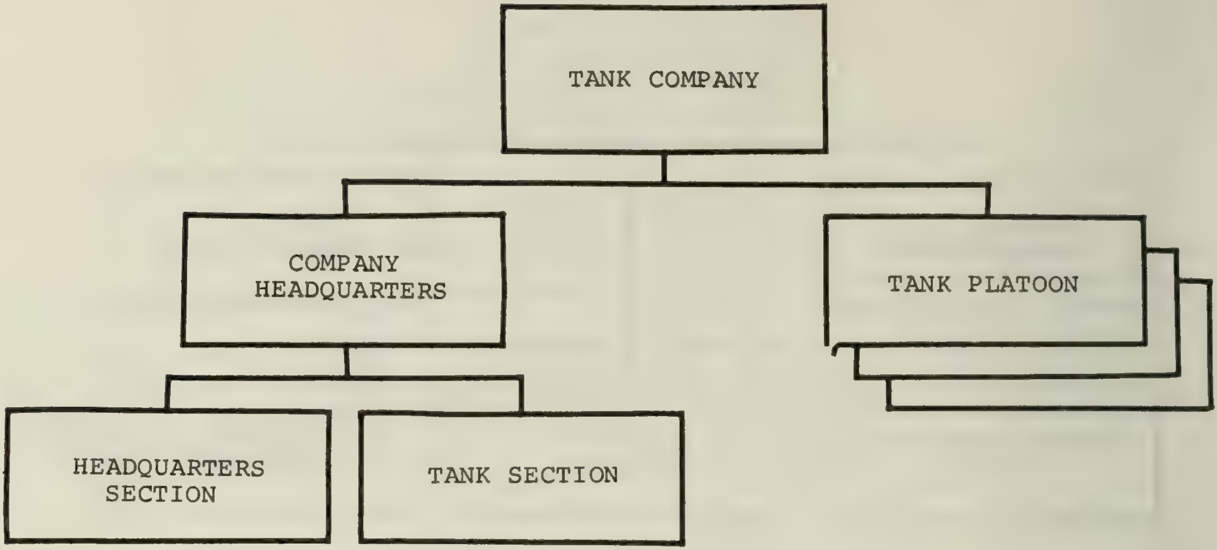


Figure 40.--Organization of the Tank Company.

(c) Antitank (TOW) Company.--The primary mission of the antitank company of the tank battalion is to provide antimechanized support for the Marine division. This mission will be accomplished by using the TOW to engage and destroy enemy armored vehicles, particularly tanks. When not performing its primary mission of destroying armored vehicles, the antitank company may assume a secondary mission of engaging other point targets such as nonarmored vehicles, crewserved weapons, and bunkers. As required by the situation and scheme of maneuver, antitank elements may be placed in support of or attached to infantry regiments or battalions. Additionally, the company may be employed as an entity in the division's antimechanized defense systems or, in smaller or dispersed operations, in a supporting role with an infantry unit. The antitank company consists of a company headquarters and three antitank platoons. (See fig. 41.)

1 Company Headquarters.--The company headquarters is composed of a motor transport section and a headquarters section containing the administrative, communication, and logistics personnel. Supply support of the company is by unit distribution with transportation, dining, and medical support provided by the battalion.

2 Antitank Platoon.--Each of the three antitank platoons in the company contains 24 TOW weapons systems for a total of 72 in the company. A platoon is composed of three antitank sections, each having eight TOW weapons systems. An antitank section consists of four antitank squads of two TOW weapons systems each.

h. Assault Amphibian Battalion.--The battalion is assigned the mission of landing and transporting amphibious troops, their supplies and equipment, from assault shipping during amphibious operations to inland objectives and transporting troops and supplies during operations ashore.

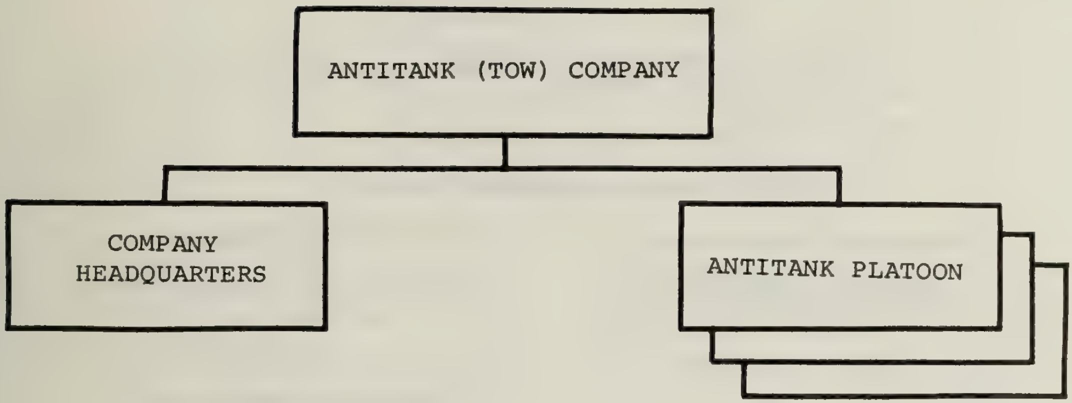


Figure 41.--Organization of Antitank (TOW) Company.

(1) Concept of Operations.--A standard assault amphibian battalion is composed of a headquarters and service company and four assault amphibian companies. The assault amphibian battalion (light) has an H&S company and only two letter companies (see figs. 42 and 43).

(a) Headquarters and Service Company.--H&S company provides command, administrative, maintenance, and organic supply support for the battalion. (See fig. 44.)

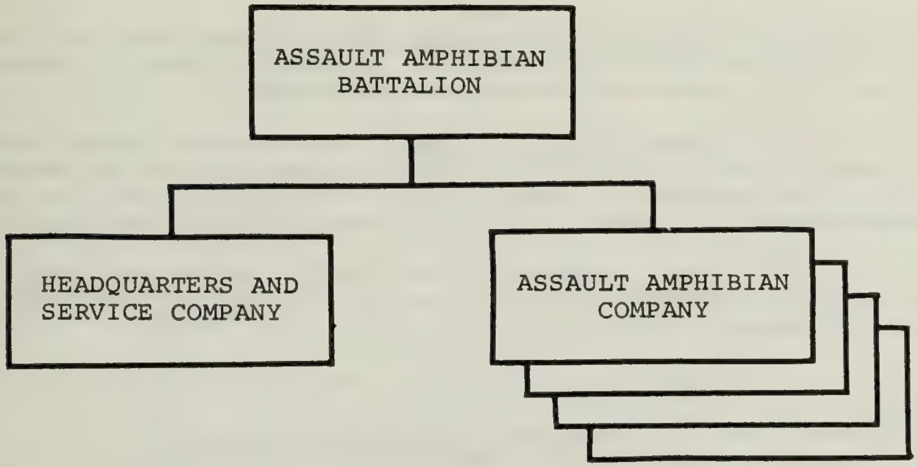

ASSAULT AMPHIBIAN BATTALION
HEADQUARTERS AND SERVICE COMPANY
ASSAULT AMPHIBIAN COMPANY

Figure 42.--Organization of the Standard Assault Amphibian Battalion.

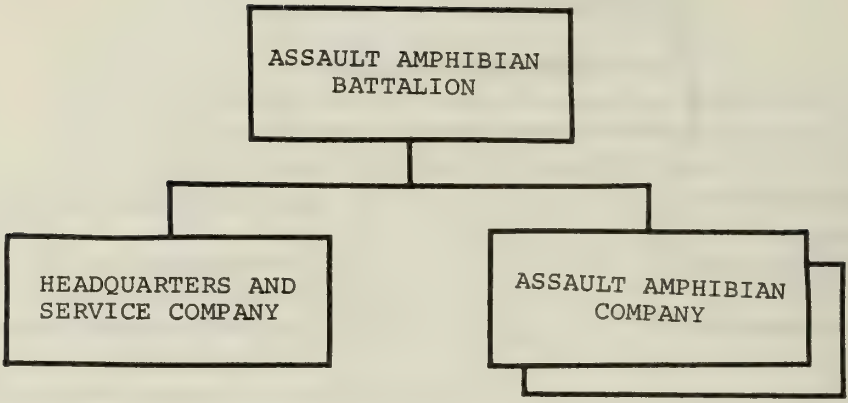

ASSAULT AMPHIBIAN BATTALION
HEADQUARTERS AND SERVICE COMPANY
ASSAULT AMPHIBIAN COMPANY

Figure 43.--Organization of the Assault Amphibian Battalion (Light).

1 Battalion Headquarters.--Battalion headquarters includes the battalion commander, his executive officer, and normal staff members.

2 Medical Section.--The medical section includes all medical personnel organic to the battalion. These personnel are familiar with the capabilities and limitations of the assault amphibious vehicle in addition to their medical qualifications. They are able to advise on the employment of the LVT as a mobile aid station and as a casualty evacuation vehicle and can man them as required in the accomplishment of such missions.

3 Chaplain Section.--The chaplain section is responsible for the spiritual welfare of the battalion.

4 Motor Transport Section.--A motor transport section is provided and is responsible for operation and maintenance of all wheeled vehicles other than those authorized the companies.

5 Communication Section.--The communication section installs, operates, and maintains the communication system for the battalion headquarters. The section is responsible for repairs through second echelon to all communication equipment organic to the battalion headquarters.

6 Supply Section.--The supply section includes the majority of supply personnel organic to the battalion and provides supply support for all units.

7 Maintenance Platoon.--The battalion maintenance platoon is responsible for organizational maintenance to include third echelon maintenance of all tracked vehicles within the battalion. The H&S company maintenance platoon in a standard battalion has two LVTR's while that of a light battalion has one.

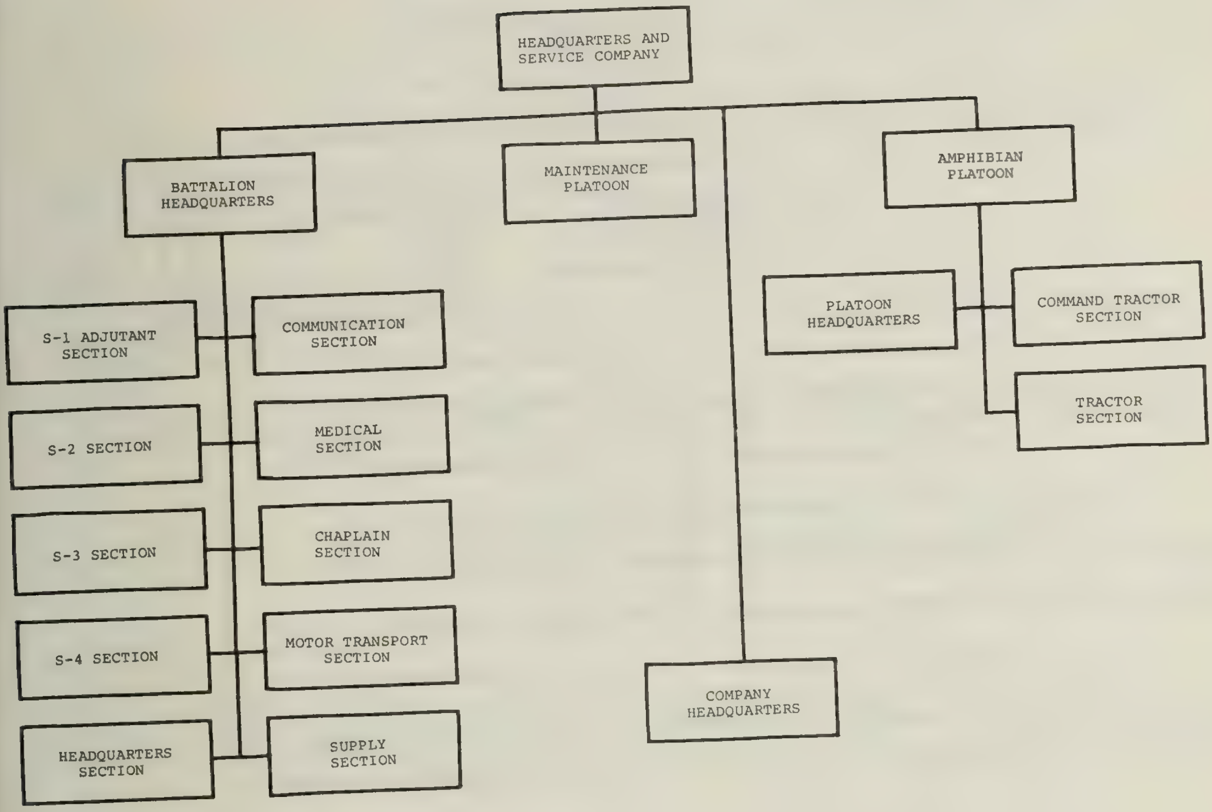
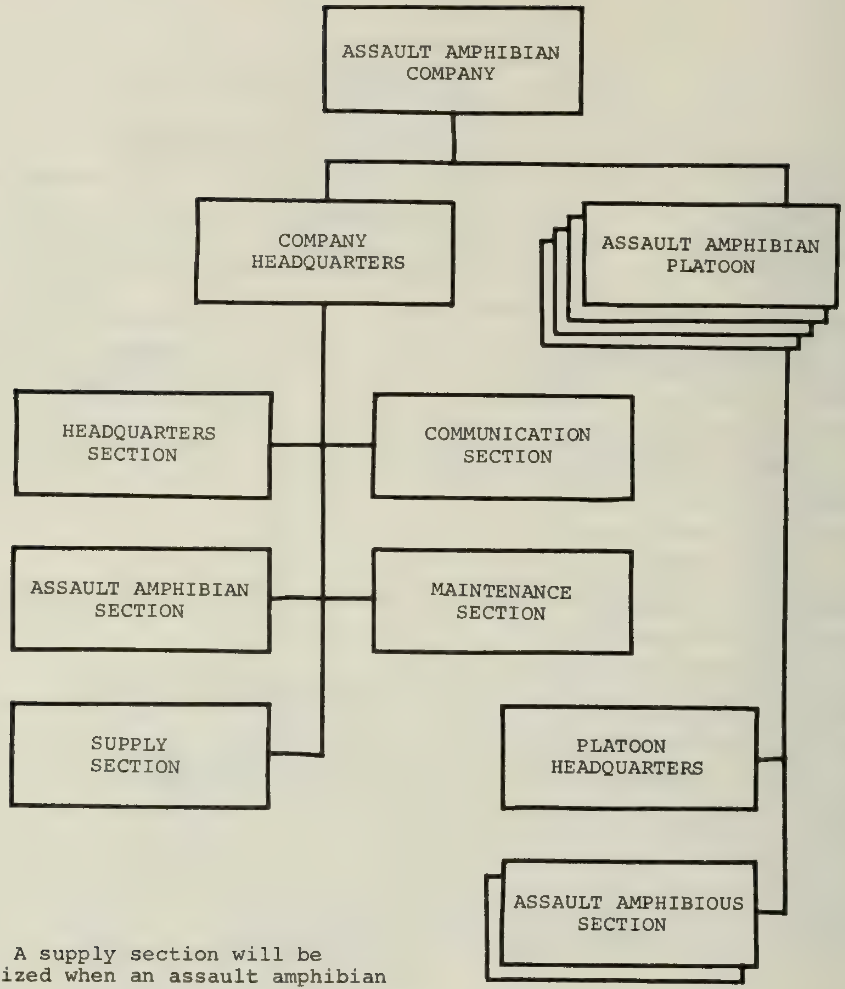


Figure 44.--Organization of the Headquarters and Service Company, Assault Amphibian Battalion.

8 Assault Amphibian Platoon.--This unit comprises three sections: a headquarters, a command tractor section, and a tractor section. The headquarters unit has normal command responsibilities. The command tractor section operates three LVTC vehicles. The assets are principally used to provide internal logistics support to the assault amphibian battalion. Two LVTC's can be provided to supported units when not required to support the battalion, with the third LVTC used for internal communication requirements. The tractor section includes 15 LVTP vehicles, intended for employment appropriate to the tactical situation. These vehicles may be made available to supported units during the conduct of a landing or subsequent movement inland if adequate boat spaces are not available in assault amphibian company vehicles. When not required by supported units, they are principally employed to provide internal logistics support for the assault amphibian battalion.

9 Company Headquarters, H&S Company.--This headquarters is responsible for the internal administrative and logistics functioning of the H&S company.



Note: A supply section will be authorized when an assault amphibian company is operating independently and not as an organic part of the battalion.

Figure 45.--Organization of Assault Amphibian Company, Assault Amphibian Battalion.

(b) Assault Amphibian Company.--Each assault amphibian company contains four assault amphibian platoons of two sections each, together with headquarters, assault amphibian, communication, and maintenance sections. (See fig. 45.) The communication section provides radio operators for internal company command nets and possesses a repair capability through second echelon. The maintenance section accomplishes second echelon maintenance on assault amphibious vehicles and assigned motor transport. Assistance in the conduct of third echelon maintenance is furnished by the battalion maintenance platoon.

APPENDIX B

DETAILS OF AGREEMENT (DofA), STANAG 2156
SURFACE TRANSPORT REQUEST AND REPLY TO SURFACE TRANSPORT REQUEST

Annex A. Surface Transport Request
B. Reply to Surface Transport Request

AIM

1. The aim of this Agreement is to standardize, for the use by the NATO Forces, the following:

a. The information which units or formations must submit to the headquarters concerned (Movements and Transport Staff) when instructed to carry out a movement for which:

(1) they do not possess the means of surface transport;
(2) they have inadequate means of surface transport;
(3) they are not authorized to use their own means of transport.

The sum of this information then constitutes a SURFACE TRANSPORT REQUEST.

b. The information contained in the reply of the headquarters concerned to the units or formations which have submitted the Surface Transport Request. This reply then constitutes a REPLY TO SURFACE TRANSPORT REQUEST.

AGREEMENT

2. Participating nations agree to comply with instructions set out below when preparing the information to be incorporated in the SURFACE TRANSPORT REQUEST and the REPLY TO SURFACE TRANSPORT REQUEST.

3. It is further agreed:

a. that this information must be capable of transmission, in code form, by message or telephone;

b. that it is not necessary to standardize the layout and format of the forms used for SURFACE TRANSPORT REQUEST and REPLY TO SURFACE TRANSPORT REQUEST as at ANNEXES A and B (Examples).

THE SURFACE TRANSPORT REQUEST

4. When a unit or formation has to effect a movement for which:

a. it does not possess appropriate means of surface transport,

b. it had inadequate means of surface transport,

c. it is not allowed to use its own means of transport, such a unit or formation must prepare a SURFACE TRANSPORT REQUEST and submit it to the headquarters concerned (Movements and Transport Staff) in accordance with national instructions and international agreements in force.

5. The SURFACE TRANSPORT REQUEST will be prepared either:

a. by the unit or formation requiring surface transport,

b. or, in urgent cases, by the military commander ordering the movement by surface transport.

6. The headquarters concerned (Movements and Transport Staff) which receives the SURFACE TRANSPORT REQUEST should find in it ALL the information necessary to enable it to determine quite independently:

a. the most suitable means of surface transport, in relation to the requirements and the actual surface transport available,

b. the action necessary to organize the surface transport.

7. The SURFACE TRANSPORT REQUEST will give the information called for in the example shown at ANNEX A.

a. The FIRST part must be completed in full.

b. The SECOND, THIRD, FOURTH, FIFTH, and SIXTH parts will be filled in as necessary. Unused spaces will not be taken up subsequently. It is, therefore, unnecessary to give negative or nil returns.

c. Examples:

(1) for the movement of an Infantry Battalion, see Appendix 1 to ANNEX A.

(2) for the transport of a general cargo, see Appendix 2 to ANNEX A.

THE REPLY TO SURFACE TRANSPORT REQUEST

8. The headquarters concerned (Movements and Transport Staff), when it has considered the Surface Transport Request, will send the unit or formation a reply in the form of a REPLY TO SURFACE TRANSPORT REQUEST. The Reply to a Surface Transport Request:

a. is used for the purpose of giving the requesting unit or formation a reply as soon as possible so that it may make the preparation for the movement of surface transport in question;

b. may be circulated as an integral part of (or as an annex or supplement to) the Movement Order issued by the authorities responsible;

c. does not preclude the submitting of a "Movement Credit" request on the routes where it is required (in accordance with STANAG 2155).

9. The REPLY TO SURFACE TRANSPORT REQUEST will provide the information listed in the example at ANNEX B.

a. The FIRST part must be completed in full.

b. The other parts will be filled in as necessary. Unused spaces will not be taken up subsequently. It is therefore unnecessary to give negative or nil returns.

c. Examples are given at Appendices 1 and 2 to ANNEX B.

IMPLEMENTATION OF THE AGREEMENT

10. This STANAG will be considered to be implemented when the necessary orders/instructions have been issued directing the forces concerned to put the content of this Agreement into effect.

ANNEX A TO STANAG 2156
(EDITION NO. 2)

SURFACE TRANSPORT REQUEST (Example of format)

CODE		MEANING	REMARKS
(a)	(b)	(c)	(d)
FIRST PART			
ONE		Very brief description of operation.	
TWO		Priority category.	If known.
THREE		Headquarters concerned (Movements and Transport Staff), unit or service submitting Surface Transport Request.	Add: a. rank, name, and appointment of officer signing surface transport request. b. address and tel no.
FOUR		Security Classification, Reference No. and "Date-time" group given to Surface Transport Request by requesting authority mentioned in FIRST PART/THREE above.	
FIVE		Departure point of surface transport.	Exact position and coordinates.
SIX		"Date-time" group of possible start of embarkation or loading operation.	Indicate Time Zone.
SEVEN		Destination of surface transport.	Exact position and coordinates.
EIGHT		"Date-time" group by which it is preferred/required that the surface transport should reach its destination.	Indicate Time Zone.
NINE		Means of surface transport desired.	Use the following code: RED : for road transport. BLACK: for rail transport. BLUE : for inland waterway transport. GREEN: for sea transport.

CODE		MEANING	REMARKS
(a)	(b)	(c)	(d)
		FIRST PART	
TEN		Has the agency requesting surface transport a metal field loading ramp?	Answer YES or NO.
ELEVEN		Any further information considered to be of use.	
		SECOND PART	
ONE	ALPHA	Male personnel to be transported: A/B/C	A = number of Officers B = number of Sergeants (or equivalent ranks) and above C = number of Corporals (or equivalent ranks) and below
	BRAVO	Female personnel to be transported: A/B/C	A, B, and C as for SECOND PART/ONE-ALPHA above.
TWO		Personal baggage, dress, personal weapons, etc.	Brief description.
THREE		Officer commanding personnel during movement.	Give: rank, name, unit.
FOUR	ALPHA	Animals: A/B	A = kind. B = number.
	BRAVO	etc.	
		THIRD PART	
ONE		TANKS AND TRACKED VEHICLES Re first category of vehicles	
	ALPHA	A/B/C/D/E	A = official description. B = number to be moved. C = weight in metric tons. D = military class (STANAG 2021). E = sketch number of unified contour booklet.

CODE		MEANING	REMARKS
(a)	(b)	(c)	(d)
THIRD PART			
	BRAVO	F = axbxc centimetres or inches	a = overall length b = overall width c = overall height (cm for centimetres; in for inches) When a detail is not known, the word "UNKNOWN" will be inserted. Where no detail exists, the word "NIL" will be inserted.
		Re second category of vehicles	
	CHARLIE	A/B/C/D/E	)) As above.
	DELTA	F	)
		Re third category of vehicles	
	ECHO	A/B/C/D/E	)) As above.
	FOXTROT	F etc.	)
TWO		ARTILLERY	
		Re first category	
	ALPHA	A/B/C/D	A = official description B = number to be moved C = weight in metric tons D = sketch number of unified contour booklet
	BRAVO	E = axbxc centimeters or inches (cm or in)	a = overall length b = overall width c = overall height Where a detail is not known, the word "UNKNOWN" will be inserted. Where no detail exists, the word "NIL" will be inserted.

CODE		MEANING	REMARKS
(a)	(b)	(c)	(d)
		THIRD PART	
		Re second category	
	CHARLIE	A/B/C/D	) As above.
	DELTA	E	)
		Re third category	
	ECHO	A/B/C/D	) As above.
	FOXTROT	E	)
THREE		WHEELED MOTOR VEHICLES	
		Re first catetory of vehicles	
	ALPHA	A/B/C/D/E	As for tanks (THIRD/PART ONE above).
	BRAVO	F	
		Re second category of vehicles	
	CHARLIE	A/B/C/D/E	
	DELTA	F	As above.
		etc.	
	ZULU	Number of motorcycles	
FOUR		TRAILERS AND SEMI-TRAILERS	
		Re first category of trailers and semi-trailers	
	ALPHA	A/B/C/D/E	As for tanks (THIRD PART/ONE above).
	BRAVO	F	
		Re second category of trailers and semi-trailers	
	CHARLIE	A/B/C/D/E	

CODE		MEANING	REMARKS
(a)	(b)	(c)	(d)
		THIRD PART	
	DELTA etc. YANKEE	F Types of tractor necessary for trailers with no tractor vehicle.	As above. Allow the authority to which the request is submitted to settle this problem, if a road movement is prescribed.
FIVE		TROOPS, MISCELLANEOUS EQUIPMENT, SUPPLIES, ETC., (WHICH CANNOT BE LOADED IN THE UNIT'S OWN SURFACE TRANSPORT)	
	ALPHA	Personnel: A/B/C	A = number of Officers B = number of Sergeants (or equivalent ranks ranks) and above C = number of Corporals (or equivalent ranks) and below
	BRAVO	A/B for first category of cargo.	A = brief description of cargo B = weight (in tons)
	CHARLIE	A/B for second category of cargo. etc.	As above.
		FOURTH PART	
ONE		GENERAL CARGO - FIRST TYPE	
	ALPHA	Brief description	
	BRAVO	Weight	In metric tons.
	CHARLIE	Average dimensions of items: axbxc centimetres or inches	1) State cm for centimetres, in for inches 2) a = length b = width c = height

CODE		MEANING	REMARKS
(a)	(b)	(c)	(d)
		FOURTH PART	
	DELTA	Loading capability of sender: A	A = metric tons per hour
	ECHO	Unloading capability of receiving unit: A	A = metric tons per hour
	FOXTROT	Special precautions desired.	
	GOLF	Brief description of heavy or awkward lifts.	
TWO		GENERAL CARGO - SECOND TYPE	
	ALPHA BRAVO CHARLIE DELTA ECHO FOXTROT GOLF	(((Same as for FOURTH (PART/ONE above. (((	
		FIFTH PART	
ONE		CONTAINERS - FIRST TYPE	
	ALPHA	ISO or other type of container.	
	BRAVO	Number of containers.	
	CHARLIE	Weight of heaviest container in consignment.	
	DELTA	Type of corner fittings.	
	ECHO	Special precautions desired.	
TWO		CONTAINERS - SECOND TYPE	
	ALPHA	ISO or other type of container.	
	BRAVO	Number of containers.	

CODE		MEANING	REMARKS
(a)	(b)	(c)	(d)
		FIFTH PART	
	CHARLIE	Weight of heaviest container in consignment.	
	DELTA	Type of corner securing attachment.	
	ECHO	Special precautions desired.	
		SIXTH PART	
	ALPHA	Requests for procuring of special means of surface transport.	
	BRAVO	Items or convoys requiring an escort which the unit itself is unable to provide.	
	CHARLIE	Any further information considered to be of use.	

NOTE: The FIRST part of this format must be completed in full. The SECOND, THIRD, FOURTH, FIFTH, and SIXTH parts to be filled in as necessary.

APPENDIX 1 TO ANNEX A
TO STANAG 2156

MESSAGE CLASSIFICATION

FROM : COMMANDER 12 INF BN

FOR : ACTION : COMMANDER MCG/INTER URGENT OPS

INFO : COMMANDER F INTER ROUTINE

SUBJECT SURFACE TRANSPORT REQUEST

FIRST
ONE : MOV OF 12 INF BN OVER DISTANCE OF 250 KM
TWO : 4
THREE : MAJOR JEAN S3 12 INF BN KLEMSKERKE
EDEN CINEMA TEL. OSTEND 46521
FOUR : SECRET 982 of 120730 Z
FIVE : KLEMSKERKE ES 0177
SIX : 122200 Z
SEVEN : VERVIERS GS 0408
EIGHT : 140600 Z/ 14100 Z
NINE : BLACK
TEN : NO

SECOND

ONE ALPHA : A 40 + B 116 + C 638
TWO : KITBAG / BATTLE DRESS
THREE : CAPT. LOUIS A COY 12 INF BN

THIRD

ONE ALPHA TANK M41/8/23/24/3143

BRAVO 700x325x277 CM

CHARLIE TANK LEOPARD/15/37/40/3146

DELTA 815 x 325 x 236 CM

THREE ALPHA JEEP/50/2/2/NIL

BRAVO 69 x 55 x 70 IN

CHARLIE AMBULANCE/2/5/5/NIL

DELTA 590 x 213 x 264 CM

ECHO VAN BAN/10/3/4/NIL

FOXTROT UNKNOWN

GOLF LORRY 3T/60/8/10/NIL

HOTEL 567 x 230 x 310 CM

INDIA TRUCK BRIDGING/3/9/12/1638

JULIET 960 x 250 x 278 CM

ZULU 22

FOUR ALPHA TRAILER 250 KG 2-WHEEL/17/1/1/NIL

BRAVO 109 x 56 x 40 IN

CHARLIE TRAILER 1T 2-WHEEL/30/1/1/NIL

DELTA 380 x 220 x 217 CM

FIVE BRAVO RESERVE FOOD SUPPLIES/15

CHARLIE INF AMMO/5

APPENDIX 2 TO ANNEX A
TO STANAG 2156

MESSAGE CLASSIFICATION

FROM : CMP OSTEND - NIEUWPOORT

FOR : ACTION : COMMANDER MCG/INTER URGENT OPS

INFO : COMMANDER 10 AMMO DEPOT ROUTINE

SUBJECT : SURFACE TRANSPORT REQUEST

FIRST
ONE : TRANSPORT OF AMMUNITION
TWO : 4
THREE : CMP OSTEND LT COL BAUDRIER S3 HOTEL COSMOPOLITE OSTEND TEL. 65232
FOUR : SECRET 2155 OF 120830 Z
FIVE : PORT NIEUWPOORT - BASSIN DES PECHEURS DS 8276
SIX : 131000 Z
SEVEN : 10 AMMO DEPOT HOUTHULST DS 9746
EIGHT : 1412 00 Z / NIL
NINE : RED
TEN : YES

FOURTH

ALPHA : INF AND ARTY AMMO
BRAVO : 400 T
CHARLIE : 80 x 40 x 30 CM
DELTA : 50
ECHO : 60

ANNEX B TO STANAG 2156
(EDITION NO. 2)

REPLY TO SURFACE TRANSPORT REQUEST (Example of format)

CODE		MEANING	REMARKS
(a)	(b)	(c)	(d)
FIRST PART			
ONE		Security Classification, Reference No. and "Date-time" group of surface transport request to which this reply relates.	
TWO		Security Classification, Reference No. and "Date-time" group allocated to this reply by sender.	
THREE		Means of surface transport allocated.	Use the following code: RED : road BLACK: rail BLUE : inland waterway GREEN: sea
FOUR		Complete statement of means of surface transport allocated.	
FIVE		Rank, name, and appointment of officer by whom this reply is signed.	
SIX		Any additional information considered useful.	
SECOND PART			
ONE		Exact location of surface transport allocated.	Identification and coordinates.
TWO		"Date-time" group when embarkation or loading operations can begin.	Indicate Time Zone. If necessary, break down into ALPHA, BRAVO, CHARLIE, etc. if surface transport availability is spaced out over a period of time.

CODE		MEANING	REMARKS
(a)	(b)	(c)	(d)
		SECOND PART	
THREE		Expected approximate "Date-time" group of departure of loaded movement or surface transport.	Particularly important in the case of rail movements. Indicate Time Zone.
FOUR		Route.	Only for road or inland waterway movement/surface transport.
FIVE		Place of disembarkation or unloading.	Identification and coordinates.
SIX		Any information considered	
		THIRD PART	
ONE		Any information regarding waiting or transit areas; points of first destination, etc.	If necessary, break down into ALPHA, BRAVO, etc.
TWO		Special instructions: standards of marching, lighting, blackout line, etc.	As above.
THREE		Comments regarding control and regulating of movements.	As above.

NOTE: The FIRST part of this format must be completed in full. The other parts will be filled in as necessary.

APPENDIX 1 TO ANNEX B
TO STANAG 2156

REPLY TO SURFACE TRANSPORT REQUEST

MESSAGE CLASSIFICATION

FROM : COMMANDER MCG/INTER

FOR : ACTION : COMMANDER 12 INF BN

INFO : COMMANDER F INTER

SUBJECT : REPLY TO SURFACE TRANSPORT REQUEST

FIRST
- ONE : YOUR SECRET 982 of 120730 Z
- TWO : SECRET 551 of 12 1100 Z
- THREE : RED BUT FOR THIRD PART ONE AND THIRD PART FIVE BLACK
- FOUR : 12 FLAT WAGONS 15 METRES AND 5 CLOSED WAGONS 12 T
- FIVE : MAJOR JACQUES S3

SECOND
- ONE : OSTEND MARITIME STATION DS 9775
- TWO : 130200 Z
- THREE : 130600 Z
- FIVE : VERVIERS EAST STATION GS 0409

THIRD
- TWO : RAMPS AVAILABLE AT OSTEND AND VERVIERS
- THREE ALPHA : FOR RED, SEND MOVEMENT CREDIT THROUGH NORMAL CHANNELS
- BRAVO : BLACK MOVEMENT CONTACTED VIA RTO GAND ST PIERRE AND LOUVAIN

APPENDIX 2 TO ANNEX B
TO STANAG 2156

REPLY TO SURFACE TRANSPORT REQUEST

MESSAGE CLASSIFICATION

FROM : COMMANDER MCG/INTER

FOR : ACTION : CMP OSTEND-NIEUWPOORT

INFO : COMMANDER 10 AMMO DEPOT URGENT OPS URGENT

SUBJECT : REPLY TO SURFACE TRANSPORT REQUEST

FIRST
ONE : YOUR SECRET 2155 OF 120830 Z
TWO : SECRET 558 of 12 1345 Z
THREE : RED
FOUR : 20 CIVILIAN LORRIES 5T FOR 4 UNINTERRUPTED TRIPS
FIVE : MAJOR JACQUES S3
SIX : VEHICLES PROVIDED BY OTR FURNES TEL. 216.29 - GARAGE MODERNE - 55, RUE DE LA GARE

SECOND
ONE : NIEUWPOORT - MARCHE AUX GRAINS - DS 8276
TWO : 130900 Z
THREE : 13 1300 Z/13 1800 Z/13 2300 Z/14 0400 Z
FOUR : PERVYSE/DIKSMUIDE/KLERKEN/HOUTHULST
FIVE : 10 AMMO DEPOT HOUTHULST DS 9746

THIRD
ONE ALPHA : SEND REPRESENTATIVE TO MARCHE AUX GRAINS NIEUWPOORT TO DIRECT VEHICLES TO LOADING QUAY
BRAVO : WHEN MISSION COMPLETED, TRANSPORT AT DISPOSAL OF OTR FURNES
THREE : ROUTE UNSPECIFIED

APPENDIX C

DETAILS OF AGREEMENT (DofA), STANAG 2163 VEHICLE WEIGHT AND DIMENSION CARD

Annex A: Format of the Vehicle Weight and Dimension Card

OBJECT

1. The aim of the Agreement is to adopt for the use of the NATO Armed Forces a standard card to facilitate the load planning and loading operations of whatever means of transport is to be used.

AGREEMENT

2. NATO Armed Forces agree to adopt for the transportation of their vehicles the card, the characteristics of which are described hereunder.

GENERAL

3. The layout of the front and reverse sides of the Weight and Dimension Card is given in Annex A.

4. The card is to be printed black on a white background.

5. If placed on the outside, the card should be protected against weather elements.

6. The card is to be written in both official NATO languages (English and French) and in the language of the country of origin if other than English or French.

7. The minimum size of the card is the following:

25 cm (9½ in) x 18 cm (7½ in)

DIRECTIONS FOR USE

8. The directions for use are shown on the reverse of each card.

9. When printed forms are not available, a substitute card of the identical format and size will be used.

IMPLEMENTATION OF THE AGREEMENT

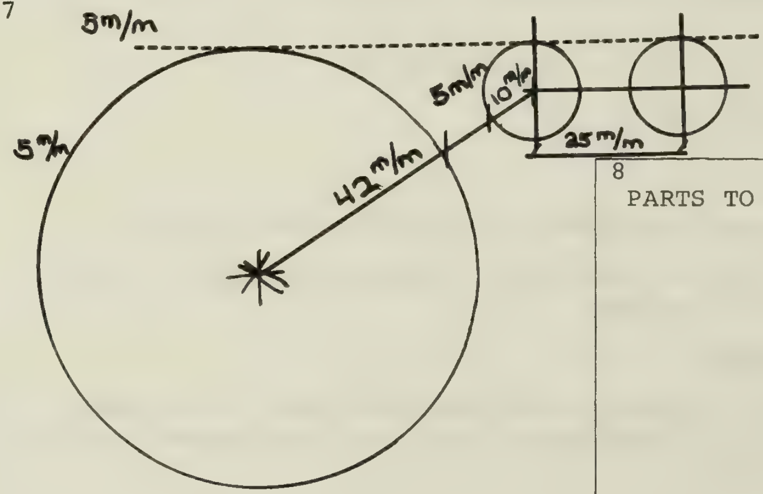
10. This STANAG will be considered as implemented when the necessary orders/instructions to adopt the card described in this Agreement have been issued to the forces concerned.

ANNEX A TO STANAG 2163
(EDITION NO. 3)

FORMAT FOR VEHICLE WEIGHT AND DIMENSION CARD

VEHICLE WEIGHT AND DIMENSION CARD

1 WEIGHT kilograms/ lbs	5 GROUND PRESSURE/AXLE WEIGHT FRONT AVANT $\frac{kg}{cm^2}$ /psi REAR
2 LENGTH meters/ inches	
3 WIDTH meters/ inches	6 MEASUREMENT TONS (APPLICABLE TO TRANSPORT BY SHIP)
4 HEIGHT meters/ inches	
7 (APPLICABLE TO RAIL TRANSPORT ONLY)	SKETCH BOOK NUMBER
	8 PARTS TO BE REMOVED FOR TRANSPORT



DIRECTIONS FOR USE

1. This card is designed to display to transport personnel the actual characteristics (laden or empty) of vehicles or equipment for the loading on any means of transport.

2. Accurate inscriptions will be indicated in capitals by the consigning unit or depot preparing the vehicles or equipment for transport. The card will be fixed on suitable surface on the opposite side of the vehicle from the driver's seat, where it can easily be seen. If outside, the card should be protected from weather elements.

3. This card is a NATO form and whoever is responsible for the inscriptions should use his country's normal system of weight and measurements, the measurement system used.

4. When completing this card for rail transport, see instructions contained in STANAG 2175.

APPENDIX D

DETAILS OF AGREEMENT (DofA), STANAG 2158 IDENTIFICATION OF MILITARY TRAINS

AGREEMENT

1. The NATO Armed Forces have agreed to adopt the international identification code defined below for the identification of military trains.

BACKGROUND

2. a. A different procedure is used by each NATO Nation for the identification of military trains moving within its territory.

   b. A national technical code number is used by each civilian railway organization for each individual train. This number, although primarily designed to keep a record of trains, may however, give some indication as to the train's country of origin. This number is changed when frontiers are crossed and, for various reasons, it is impossible to contemplate retaining it beyond the frontier of the country of origin.

   c. Some countries have thought it necessary for the benefit of their military authorities, to add a number to the technical code number, indicating thereby the nature of the contents of the train (troops or supplies). This additional number has so far been specially reserved for the use of the military authorities within the nation in question.

3. It was, therefore, essential that a standardized procedure be defined and that a code number be devised for the use of military authorities (allied or national) which would remain unchanged throughout the journey across various frontiers and would cause no inconvenience to railway organizations (which would continue to use their technical numbers).

REQUIREMENTS

4. a. The code number, known as the "International Identification Code for Use on Military Trains' must show in particular:

      (1) Movement executing priority, for which it has been agreed to adopt three classes, priority number one being the highest and being assigned in exceptional cases only.

      (2) Country of origin.

      (3) Date of departure.

4. a. (4) National identification code numbers; in order to ensure identification of a given train among other trains to which the above information might also apply (as in the case of several trains departing on the same day), a national identification code number(1) should be included at a given position in the international code.

(5) Country of destination.

b. Because of the complexity of the problem, this procedure will be used only for the identification of complete military trains as opposed to individual good wagons (US: freightcars) or groups of such wagons. If a train is broken up on the final stage of its journey, only its biggest section may, if appropriate, retain the original number.

c. In the planning stage of initial movements, the priority and the date of departure will be temporarily replaced in the International Identification Code Number by 0 (zero) and 00 (two zeros) respectively. If the priority is unknown, the index 0 will be used and the movement will take place at the lowest priority. The true date of departure will be given by the movements control agency as soon as it is known.

DEFINITION OF THE INTERNATIONAL IDENTIFICATION CODE FOR USE ON MILITARY TRAINS

5. The code will comprise a series of figures, letters, or symbols, arranged as follows:

a. One figure to indicate the movement execution priority.

b. Two letters to indicate the country of origin (letters indicating the nationality as in STANAG 1059).

c. Two figures to indicate the day of departure (in the current month).

d. The national identification code number(1) as assigned by the country of origin.

e. Two letters to indicate the country of destination.

6. For example:

2 - FR - 07 - 436239 - NL

identifies a military train as follows:

a. Movement execution priority is 2.

b. The country of origin is FRANCE.

NOTE (1) This number may be either the national technical code number assigned by the railway organization in the country of origin or any other number assigned by the military authorities of that country and possibly providing information as to the nature of the load carried.

c. The date of departure is 7th of the current month.

d. The national identification code number(1) assigned by FRANCE is 436239.

e. The train contains items for shipment to the NETHERLANDS.

IMPLEMENTATION OF THE AGREEMENT

7. This STANAG will be considered to have been implemented when the necessary orders/instructions putting the procedures detailed in the Agreement into effect have been issued to the forces concerned.

NOTE (1) This number may be either the national technical code number assigned by the railway organization in the country of origin or any other number assigned by the military authorities of that country and possibly providing information as to the nature of the load carried.

APPENDIX E

DETAILS OF AGREEMENT (DofA), STANAG 2165
FORECAST OF MOVEMENT REQUIREMENTS - RAIL, ROAD, AND INLAND WATERWAYS

Annex A: Table of Forecast Movment Requirements - Rail, Road and Inland Waterways

AIM

1. The aim of this agreement is to standardize for NATO Forces a document common to several means of transport for the purpose of submitting forecast movement requirements, including movement requirements based on approved contingency plans, to their own national authorities and/or to the nations concerned in such movements.

AGREEMENT

2. Participating nations agree to use the standard format found at Annex A for the "Table of Forecast Movement Requirements - Rail, Road and Inland Waterways".

FORECAST MOVEMENT REQUIREMENTS

3. As soon as military authorities have knowledge of their movement (or transport) requirements, for a given period of time, they are to inform the military authority responsible for the organization of movements (or transport) in the originating nation (or in the originating zone in a nation) as soon as possible.

4. When forwarding the essential information, the requesting authority must use the format of the "Table of Forecast Movement Requirements - Rail, Road and Inland Waterways" shown at Annex A as follows:

a. Action : To the military authority of the originating nation (or in the originating zone in a nation) in charge of the organization of movements.

b. Information: To the military authorities concerned of the transiting nation and nation of destination (or the transiting zone and zone of destination in a nation).

5. Study of the "Table of Forecast Movement Requirements - Rail, Road and Inland Waterways" will allow the military authority in charge of the organization of movements in the originating nation (or in the originating zone in a nation):

a. To carry out a preliminary survey on the possibilities of granting the request.

5. b. To take the first steps with the military authorities of the transiting nation and nation of destination (or the transiting zone and zone of destination in a nation).

c. To select the type of transport to be used.

d. To inform the requesting authority:

(1) Of steps taken to satisfy his requests.

(2) Of the movements for which it will be necessary for the requesting authority to make out a "Transport Request" in accordance with the provisions of STANAG 2156.

e. To develop supporting transportation plans for forecast requirements resulting from approved contingency plans.

6. The Forecast Movement Requirements - Rail, Road and Inland Waterways must be forwarded, if possible, in writing in at least one of the two official NATO languages. It can also be forwarded by signal or by telephone by using the code identifying the different items and columns. A specimen of the "Forecast Movement Requirements - Rail, Road and Inland Waterways", as transmitted by signal, is enclosed at Appendix 2 to Annex A.

IMPLEMENTATION OF THE AGREEMENT

7. This STANAG is considered to be implemented when the necessary orders/instructions have been issued directing the forces concerned to put the content of this agreement into effect.

ANNEX A TO STANAG 2165 (Edition No. 3)

TABLE OF FORECAST MOVEMENT REQUIREMENTS-RAIL, ROAD AND INLAND WATERWAYS (Suggested Format)

For the Period of Time From ....(date)..................to.................(2)

FROM..(3)
(Requesting Authority)

TO..(4)
(Competent Authority of the Originating Nation)

Serial or line item	Reference no or nickname	Consignor	AREA/POINT	Consignee	AREA/POINT	Nations/ National zones concerned	Type of transport preferred	LOADS									Rate of dispatch	Date movement to commence	Date movement preferred/ required for completion	Priorities	Remarks
			of departure + coordinates		of destination + coordinates			PAX		CARGO				SPECIAL LOADS							
								Number	Type	Category or type	Weight	Cube	Number	Weight of each	Class 2021	Sketch no					
	ALPHA	BRAVO	CHARLIE	DELTA	ECHO	FOXTROT	GOLF	HOTEL	INDIA	JULIET	KILO	LIMA	MIKE	NOVEMBER	OSCAR	PAPA	QUEBEC	ROMEO	SIERRA	TANGO	UNIFORM
ONE																					
TWO																					
THREE																					
FOUR																					
FIVE																					
SIX																					
SEVEN																					
EIGHT																					
NINE																					
TEN																					

NOTES: For notes and explanation, see Appendix 1 to this Annex.

APPENDIX 1 TO ANNEX A
TO STANAG 2165
(Edition No. 3)

NOTES ON TABLE OF FORECAST MOVEMENT REQUIREMENTS - RAIL, ROAD AND INLAND WATERWAYS

HEADINGS	MEANING	REMARKS
(1)	Classification	Enter classification of report as determined by originating agency.
(2)	Period of Forecast	Enter period of forecast as announced by the appropriate national authority.
(3)	Requesting Authority	Enter unit designation of organization responsible for submitting, e.g., 97th Signal Group.
(4)	Competent Authority of the Originating Nation	Enter unit designation of organization directed to receive forecast within originating nation.
COLUMN	MEANING	REMARKS
	Serials or Line Items	Use separate serial or line number for each shipment forecast
Alpha	Reference Number or Nickname	
Bravo	Consignor	Enter specific dispatching agency
Charlie	Location and Coordinates	Enter exact location and coordinates (2 letters, 6 figures)
Delta	Consignee	Enter specific receiving agency
Echo	Location and Coordinates	Enter exact location and coordinates (2 letters, 6 figures)
Foxtrot	Nation/National Zones Concerned	Enter National Distinguishing letters (see STANAG 1059)
Golf	Type of Transport Preferred	Enter preferred mode: Road, IWT, Rail (see STANAG 2156)

HEADINGS	MEANING	REMARKS
Hotel/ India	Number and Type Passenger	Enter number of passengers and general description. Personnel are normally listed as troops, patients, civilians, POW's and such other categories as will assist the movements personnel in selecting the mode of transportation.
Juliet/ Kilo/ Lima	Class of Supply and Tonnage	Enter class of supply, estimated tons and cube. Note: (State type of ton used, e.g., Metric Ton (MT), Long Ton (LT), Short Ton (ST). The movement programmers are not normally concerned with an inventory of specific items within a class; however, items requiring special handling must be specified in the remarks column so that the outstanding characteristics can be readily identified. For example, heavy lifts other than vehicles should be expressed in units, dimensions and tons for each lift.
Mike/ November/ Oscar/ Papa	Special Loads	Enter number of vehicles/ tanks to be moved weight in tons (see note at Juliet above) for each, military load classification in accordance with STANAG 2021 (Road) and sketch number of the unified contours booklet (Rail).
Quebec	Rate of Despatch	Enter tons (see note at Juliet above) of cargo or number of vehicles/tanks which can be moved daily (the capacity of the shipping and receiving organization determines).
Romeo	Date Movement to Commence	Enter earliest date that movement can commence.
Sierra	Date Movement Preferred/ Required for Completion	Enter date movement preferred/ required for completion followed by preferred or required as applicable.

COLUUMN	MEANING	REMARKS
Tango	Priorities	Enter assigned priority.
Uniform	Remarks	Enter any information which will assist in planning the move, e.g., heavy lifts, dangerous material, special handling data on wheeled vehicles and passenger requirements.

APPENDIX 2 TO ANNEX A
TO STANAG 2165
(Edition No. 3)

MESSAGE (Specimen)

FROM : HQ/ADVANCED BASE UK

TO : ENG/CM TPT

SUBJECT : TABLE OF FORECAST MOVEMENT REQUIREMENTS - RAIL, ROAD AND INLAND WATERWAYS FOR PERIOD OF 10 JAN TO 16 JAN 1966

PRECEDENCE : ROUTINE

ONE	ALPHA	P/156
	BRAVO	3 REPL BN
	CHARLIE	ZEEBRUGGE ES (6 figures)
	DELTA	9 REPL CO
	ECHO	MUNSTER MC (6 figures)
	FOXTROT	BE/NL/GE
	GOLF	RAIL
	HOTEL	200
	INDIA	TROOPS
	JULIET	BAGGAGE
	KILO	8 MT
	LIMA	400 CU FT
	MIKE	NIL
	NOVEMBER	NIL
	OSCAR	NIL
	PAPA	NIL
	QUEBEC	50 MT PER DAY
	ROMEO	12 JAN
	SIERRA	15 JAN REQUIRED
	TANGO	TWO
	UNIFORM	NIL

TWO	ALPHA	S/723
	BRAVO	DEPOT 603
	CHARLIE	ZEEBRUGGE ES (6 figures)
	DELTA	ASP 503
	ECHO	MUNSTER MC (6 figures)
	FOXTROT	BE/NL/GE
	GOLF	RAIL
	HOTEL	NIL
	INDIA	NIL
	JULIET	AMMUNITION
	KILO	5000 T
	LIMA	1500 CU METRES
	MIKE	NIL
	NOVEMBER	NIL
	OSCAR	NIL
	PAPA	NIL
	QUEBEC	1000 T/PER DAY
	ROMEO	12 JAN
	SIERRA	16 JAN REQUIRED
	TANGO	TWO
	UNIFORM	NIL
THREE	ALPHA	Q/145
	BRAVO	DEPOT 605
	CHARLIE	GEEL FS (6 figures)
	DELTA	SP 505
	ECHO	RHEINDAHLEN LB (6 figures)
	FOXTROT	BE/NL/GE
	GOLF	RAIL

HOTEL	NIL
INDIA	NIL
JULIET	NIL
KILO	NIL
LIMA	NIL
MIKE	10
NOVEMBER	60 T
OSCAR	40
PAPA	3145
QUEBEC	2 PER DAY
ROMEO	12 JAN
SIERRA	17 JAN REQUIRED
TANGO	TWO
UNIFORM	HEAVY LIFT REQUIRED AT DESTINATION

APPENDIX F

DETAILS OF AGREEMENT (DofA), STANAG 2175
CLASSIFICATION AND DESIGNATION OF FLAT WAGONS SUITABLE FOR TRANSPORTING MILITARY VEHICLES AND EQUIPMENT

Annex A. Classification of Flat Wagons.
B. Marking of Flat Wagons.
C. Marking of Italian Flat Wagons.
D. Classification of Ordinary Military Vehicles and Equipment.
E. PPI Gauge (Passe Partout International).
F. Envelope A.
G. Envelope B.
H. Format for Vehicle Weight and Dimension Card.
I. Classification Marking of Ordinary Military Vehicles and Equipment.
J. Safety Marking of Ordinary Military Vehicles and Equipment Subject to Special Dismantling Instructions Prior to their Consignment by Rail.
K. Safety Marking of Exceptional Military Vehicles and Equipment.

AIM

1. The aim of this Agreement is to facilitate the preparation of despatch of military transport by means of:

a. The classification and marking of wagons.
b. The parallel classification of Ordinary Military Equipment.
c. The unified sketchbook for Military Exceptional Transport.
d. The loading conditions data appearing on military vehicles and equipment.

AGREEMENT

2. Participating nations agree to:

a. Adopt the classification and marking of flat wagons as established by European Administrations as defined at Annexes A, B, and C. In accordance with the same disposition, they will classify and mark the flat wagons belonging to them, it being understood that these operations should be carried out in agreement with the Railway Administrations who have registered the wagons.

b. Classify, in parallel, their "ordinary transport" military vehicles and equipment in accordance with the above classification.

c. Declare the unified sketchbook binding within the Armed Forces as a basis for agreements. The unified sketchbook is to be kept up to date by the Railway Administrations in cooperating with the Armed Forces who will inform the Railway Administration concerned of the entry into service and the withdrawal of all types of exceptional transport, military vehicles, and equipment. This will apply to every modification made to military vehicles and/or equipment which may consequently present different characteristics of measurement and weight.

2. d. Indicate clearly on each military vehicle or equipment, where required by the agreement, the loading conditions which are to be met for loading on railway flat wagons.

DEFINITIONS

3. The following definitions are used for the purpose of this agreement:

a. Ordinary Flat Wagons. Ordinary flat wagons, in the military sense of the term, are those with characteristics corresponding to one of the categories "0" to "3", listed in Annex A and which are suitable for the carriage of "ordinary transport" military vehicles and equipment. Note (1).

b. Special Flat Wagons. Special flat wagons, in the military sense of the term, are those with characteristics corresponding to one of the categories "4" to "9" listed in Annex A and which are also suitable for the carriage of the "exceptional transport" military vehicles and equipment.

c. Ordinary Transport, Military Vehicles, and Equipment. Note (2). Military vehicles and equipment referred to in this document include wheeled vehicles, tracked vehicles, and equipment which present both of the following characteristics:

(1) Less than 20 metric tons overall weight.

(2) When loaded on a flat wagon constitutes a "wagon/car-load" unit, the contour of which, after considering the necessary gauge reductions, is inscribed totally within the Passe Partout International (PPI) gauge contour taking into account the necessary reductions.

d. Exceptional Transport Military Vehicles and Equipment. Note (3). The exceptional transport military vehicles and equipment referred to in the present document include wheeled vehicles, tracked vehicles, and equipment which present at least one of the following characteristics:

(1) Indivisible load weighing 20 metric tons or over.

(2) When loaded on a flat wagon, the "wagon/car-load" units exceed the PPI gauge measurements.

Notes:

(1) Some vehicles which are considered as "exceptional transport" according to their size may be loaded on ordinary flat wagons.

(2) Designated hereafter as "ordinary" vehicles and equipment.

(3) Designated hereafter as "exceptional" vehicles and equipment.

GENERAL

4. The transport by rail of military vehicles and equipment generally presents considerable difficulty because of the great variety of characteristics of these vehicles and equipment and the need to use the correct type of flat wagon in each case. The Railway Administrations have, at their disposal, various types of flat wagons, some of which are in a limited number. This type of transport is, in many cases, outside the PPI loading gauge.

a. Some studies have been initiated at PBEIST with the aim of simplifying the methods for designation and selection among various existing types of flat wagons suitable for military transport. As a result of these studies, it has been possible to classify these flat wagons into a reduced number of specific categories. This classification is found in paragraph 8.

b. However, it has not been possible to establish a classification similar to the one used for flat wagons and valid for all types of military vehicles and equipment owing to the complexity of the problems.

(1) Every transport of a given military vehicle or equipment requires a preliminary loading study and, should the dimensions of the PPI gauge be violated, a traffic study is required:

(a) The purpose of the loading study is:

(i) to select and to designate flat wagons the characteristics of which correspond to the equipment to be loaded.

(ii) to determine the specific loading conditions, i.e., location on the wagons, number of loadable pieces of equipment, partial dismantling, etc.

Upon completion of the above study which is independent of the route to be followed, it is considered possible to have several "wagon/car-load" units for the same piece of equipment.

(b) The purpose of the traffic study of one or more "wagon/car-load" units is:

(i) to determine one or more possible routes between a specific point of departure and a specific point of destination.

(ii) to consider the traffic conditions on these routes.

(iii) to select the best route and the "wagon/car-load" unit best adapted to this route.

(2) Military vehicles and equipment loaded on railway flat wagons require ordinary or exceptional transport as defined in paragraph 3.c., and d., according to their weight or measurements.

(a) Ordinary transport only requires a loading study. The designation of flat wagons suitable for ordinary transport is through a parallel classification set out at paragraph 12.

(b) Exceptional transport requires a loading study followed by a traffic study. The designation of the flat wagons suitable for carrying out such transport is done with the use of traffic maps A and B and of the unified sketchbook described at paragraphs 14 and 16.

CLASSIFICATION AND MARKING OF FLAT WAGONS

5. Need for the Classification of the Flat Wagons Suitable for the Carriage of Military Vehicles and Equipment. In order to facilitate:

a. the designation and selection of the required flat wagons,

b. The control of loading,

c. the monitoring of special flat wagons by the Central European Clearing Office,

the European Railway Administrations have classified their flat wagons suitable for military transport into different categories. This classification also applies to the wagons belonging to the Armed Forces, and registered as such, which are stationed in Allied Command Europe. The wagons in each category are easily identified by means of a special marking.

6. Basis for the Classification of Wagons. Although it is based on the uniform marking adopted by the "Union Internationale des Chemins de Fer (UIC)," the European classification system for flat wagons refers to minimum characteristics presented by the equipment on hand in the Railway Administration's rolling stock; these characteristics give a better definition of their ability to transport military equipment. They are:

a. Floor length.

b. Floor width usable.

c. End span floor width.

d. Wheel base.

e. Height of loading planes.

Upper and lower limitations are required in order:

(1) To prevent the equipment loaded on ordinary flat wagons from encroaching the PPI gauge.

(2) To prevent the floor from lowering, when loaded, thus risking contact with the platforms and the lower parts of the gauge, particularly when the load exceeds the usable width of the wagons.

f. Minimum load (which the wagon must be able to carry).

g. Strength over a given bearing length.

7. A parallel as thorough as possible has been maintained between the classification of the ordinary flat wagons and the subsequent classification of the special flat wagons. Some special flat wagons particularly useful for transporting "exceptional" military equipment and having specific characteristics could not be included in a category of the adopted system (this is the case of the low-bed wagons and of a large number of British Armed Forces wagons stationed in continental Western Europe. Note (4). In order not to overlook their possibilities, the low-bed wagons have been designated by their eleven digit UIC serial number and the British Armed Forces wagons by the sign "U.K."

8. Classification

a. Flat wagons are broken down into ten categories:

(1) Four for ordinary flat wagons (0, 1, 2, 3).

(2) Six for special flat wagons (4, 5, 6, 7, 8, 9).

The corresponding table is at Annex A.

b. In order to be classified within a given category, a type of wagon must meet all characteristics of this category which are generally defined by their lower and upper limits.

c. Minimum characteristics which have been established for a category of wagons correspond to those of the type of wagons classified into this category and which offers the characteristics less favorable to military transport. As a consequence, a load which does not exceed the minimum characteristics of a category of flat wagons can be loaded on any wagon of the said category.

Note:

(4) Characteristics of British flat wagons:

a. Floor length : 12.20 m
b. Usable width : 3.09 m
c. Wheel base : 9.15 m
d. Height of loading planes: 1.355 m
e. Permissible load : 40 to 58 metric tons
f. Strength over a given bearing length: 51 metric tons/3.5 m

8. d. Progression in the characteristics of the different categories of wagons has been sought with a view of enabling a wagon to be possibly replaced by another in a higher category. This progression has been established for the categories of ordinary flat wagons to which applies the principle of replacement. However, it is not feasible for special flat wagons. Consequently, a given flat wagon cannot be replaced automatically by another in a higher category. For each transport requiring the use of special wagons, it is necessary to refer to the unified sketchbook.

9. European Classification Marking on Flat Wagons:

a. Purpose of the Marking. It is necessary to mark flat wagons which are integrated in the European classification system by means of their category number in order to facilitate their identification in respect of transport requirements.

b. Marking. The marking reproduces the number of the category to which the wagon belongs. The shapes, dimensions, colours, and positions of the markings are defined in Annex B; for the Italian wagons, at Annex C. The british wagons mentioned in paragraph 7 above are marked as prescribed at Annex B, the number being replaced by "UK."

DESIGNATIONS OF ORDINARY FLAT WAGONS USED FOR CARRYING ORDINARY MILITARY VEHICLES AND EQUIPMENT

10. Possibility of a Parallel Classification or Ordinary Flat Wagons and Ordinary Military Equipment. Ordinary military vehicles and equipment are in great number but their transport requires only a loading study which can be conducted entirely in advance. Furthermore, the ordinary flat wagons on which they are normally loaded are classified into four categories with progressive characteristics. Both conditions have made possible the establishment of a classification of ordinary military vehicles and equipment into categories in parallel with the classification of ordinary flat wagons.

11. Basis of Parallel Classification of Vehicles. The parallel classificcation is based on a comparative study of the main characteristics of the ordinary military vehicles and equipment and of those of the ordinary flat wagons of a corresponding category onto which they can be loaded. To each category of equipment corresponds a category of weapons able to convey it and both categories bear the same number. The characteristics of vehicles taken into account are:

a. Maximum Weight. Combat equipped, excluding personnel.

b. Maximum Track Pressure which is calculated according to the weight of the equipment and the bearing length of the tracks.

c. Maximum Length. In no case should the maximum length of military equipment to be loaded on a wagon of a given category exceed the usable length required for this category of wagons, taking into account the overhang allowed by the "RIV" (regulations concerning the reciprocal use of wagons in international traffic) in its Annex II, paragraph 6.

d. Maximum Width. Military equipment, and particularly tracked equipment, are generally wider than the wagon suitable for their carriage. For tracked vehicles, the lateral overhang on each side must be limited to a value equal to half the width of the vehicle track, less a safety margin of 0.05 m. Consequently, the maximum width between the outside edges of the tracks must comply with the following formula:

$$lm = lu + d - 0.10 \text{ m}$$

in which

lm = maximum width (width between outside edges of tracks) in meters

lu = usable width of the wagon in meters

d = width of track in meters

0.10 m = essential safety margin (0.05 m x 2).

12. Parallel Classification. Parallel classification for ordinary military vehicles and equipment is shown on table at Annex D.

a. Some Armed Forces have prepared documents which put in definite form the parallel classification of military vehicles and equipment. The category of ordinary flat wagons on which they can be loaded stands opposite their designation. The selection of a wagon suitable for the carriage of military vehicles and equipment is thus immediate.

b. For the classification of military vehicles and equipment into a given category, all its characteristics must be compatible with those of the corresponding category of wagons.

c. The category established for military vehicles and equipment is the category of the wagon which has the lowest number of all wagons which are suitable for transporting that piece of equipment.

d. Since the progression has been made between the different categories of ordinary flat wagons, their category numbers increase with the characteristics of the wagons. Consequently, the military vehicles and equipment which can be loaded on an ordinary flat wagon of a given category can be conveyed without exception on all those wagons pertaining to categories of ordinary flat wagons bearing a higher category number.

e. Although it is sometimes feasible, it is not advisable to replace ordinary flat wagons by special flat wagons.

f. In order to reduce the number of wagons required, it may be useful to group two or more pieces of equipment on the same wagon. It should be noted that no progression applies in the case of simultaneous laoding of two or more pieces of equipment on to the same wagon.

DESIGNATION OF FLAT WAGONS USED FOR CARRYING EXCEPTIONAL MILITARY VEHICLES AND EQUIPMENT

13. The designation of flat wagons suitable for the carriage of exceptional military equipment is complex since the loading problems interfere with the traffic problems, which form the subject of STANAG 2832.

14. Need for Facilitating the Traffic Studies Related to Exceptional Transport:

a. Owing to its limited dimensions, the PPI gauge (Annex E) places many restrictive movement regulations on exceptional military vehicles and equipment and it cannot be used as a single basis to solve the traffic problems posed by such equipment, the potential of which must be exploited to the maximum, considering their tactical value.

b. In order to utilize to the best advantage the major part of all maximum travelling capabilities of the existing railway infrastructure, some overall gauges (enveloppe d'encombrement), wider and higher than PPI gauge, have been investigated; these would enable most of the exceptional equipment loaded on flat wagons to travel the maximum of routes without important operating constraints. Two progressive overall gauges names "A" (Annex F) and "B" (Annex G) have been defined for this purpose; they will permit the classification into two groups of the major part of exceptional military transport:

(1) Gauge A exceeds the PPI gauge as far as height is concerned.

(2) Gauge B exceeds the PPI gauge as far as height and width are both concerned.

Both gauges are symetrical and the contour above 3.370 m from rail level is similar for both gauges.

c. The study of the traffic conditions of both overall gauges has enabled each of the European Railway Administrations to prepare two traffic maps knows as gauge A and gauge B maps.

15. Impractability of Establishing a Parallel Classification of Exceptional Military Vehicles and Equipment and of Flat Wagons Suitable for Their Carriage:

a. Exceptional Transport military equipment is normally loaded on special flat wagons of categories 4, 5, 6, 7, 8, and 9. If necessary, they may be loaded on ordinary flat wagons of categories 2 and 3 and on nonclassified special wagons which are designated by means of their UIC serial number or by the letters "UK."

b. Various "wagon/car-load" units which are deemed suitable after the loading study conducted for each exceptional piece of equipment do not generally fit into the same gauge. As a result, the traffic conditions could be different according to the type of wagon utilized. Since these conditions can only be determined considering the point of departure and the point of destination, the classification "a priori" of a category (or serial) of wagons best adapted to the transport of an exceptional piece of equipment, is, in most cases, not feasible. Furthermore, since the progression has not been made between categories of special flat wagons, a parallel classification similar to the one used for ordinary equipment, which would be workable everywhere and under all conditions, cannot be established between exceptional equipment and special flat wagons.

16. Unified Sketchbook for Exceptional Military Transport. In order to make possible the designation within a suitable time of the flat wagons able to carry exceptional vehicles and equipment, the PBEIST Rail Transport Subcommittee has prepared a unified sketchbook which includes, for each piece of equipment, the results of the loading studies as well as the static data required for the traffic studies:

a. This document includes a variable number of sheets. Each exceptional piece of equipment appears on a sheet which bears a four digit number. The numbering system has been established to prevent a piece of equipment used by several armies from being designated by different numbers. Each sheet provides the following information:

(1) Sketch of equipment.

(2) Category(ies) or serial number(s) of wagon(s) suitable for loading.

(3) Gauge prepared for each "wagon/car-load."

(4) If necessary, special loading conditions, i.e., partial dismantling to be carried out, displacement of axis, etc.

b. The designation of the category (or serial) of wagons able to carry an exceptional piece of equipment between two given points is carried out by the Railway administration concerned by collating the data contained in the unified sketchbook and the traffic maps taking into account the availability, known only to the administration, of special flat wagons of different categories close to the loading point. Consequently, with regard to exceptional equipment, the military consignor will only have to indicate in his request to the Railway Administration:

(1) The departure point and the destination point.

(2) The number of pieces of equipment to be conveyed.

(3) The numbers of the sheets related to this equipment.

LOADING CONDITIONS INDICATIONS APPEARING ON MILITARY VEHICLES AND EQUIPMENT

17. Aim. To enable personnel by the means of a simple reading:

a. To know the type of the loads to be carried "exceptional" or "ordinary."

b. To check rapidly the compatibility of the loads.

18. Procedures. The indications required for a railway transport appear on military vehicles or equipment:

a. Either on the "Vehicle Weight and Dimensions Card" defined by STANAG 2163, modified in its lower half so as to show data specific to rail transport. The shape, and some dimensions of this card are defined at Annex H. All arrangements should be made by the consignors in order that the card would not be removed during the transport; that the indications on the card would be clearly visible and could not be removed. Should one of the above conditions not be met, the Railway Administrations control agents would be entitled to delay the train for checking.

b. Or by markings painted on or stickers which carry the indications appearing on the lower half of the card. The dimensions of the circles and of the figures should, however, be multiplied by 3/2. These markings, like the card, should be clearly visible.

19. Procedures for Indications Appearing on Ordinary Vehicles and Equipment

a. Indication of the Parallel Plan (OPTIONAL)

(1) In order to obtain a maximum efficiency of the parallel classification and to make possible the designation, without documents, of the categories of flat wagons suitable for the loading of ordinary equipment, Armed Forces may, if they wish to do so, indicate the number of the category into which the equipment has been classified on the weight and dimension card or on the equipment itself. In this case, this indication is given by the category number drawn in black inside the large white circle of the card, as shown at Annex I.

(2) In the opposite case, no figure will be drawn inside the large white circle.

b. Safety Marking for Vehicles and Equipment Subject to a Special Treatment Prior to Their Consignment (MANDATORY)

(1) Some vehicles and equipment weighing less than 20 metric tons do encroach the PPI gauge when they are loaded on ordinary flat wagons without special precautions; however, they will clear the gauge if they have been especially prepared by the means of simple dismantling of parts.

(2) If not dismantled as mentioned above, this equipment will inevitably be damaged and may cause accidents of a very serious nature. Therefore, it appears indispensable for safety reasons to indicate on the card or on the equipment that some action should be taken prior to their loading. This indication is given by the small circle on the left hand side which is then painted entirely in red as shown at Annex J.

20. Procedures for Safety Marking on Exceptional Vehicles and Equipment (MANDATORY). As there is no parallel classification, no figure will appear inside the large white circle However, it is absolutely required that the attention of the military consignor and the agents of the Railway Administration is drawn to the "exceptional" nature of such equipment, to the resulting constraint for the rail transport and to the obligation to consult the relevant pages of the unified sketchbook in order to determine the loading conditions and the dismantling operations prior to the consignment of such equipments. This indication is given by the two small circles which are then entirely painted in red as shown at Annex K. When possible, the appropriate sketchbook number shall be indicated.

IMPLEMENTATION OF THE AGREEMENT

21. This STANAG will be considered to have been implemented when the necessary orders/instructions have been issued directing the forces concerned to put the content of this Agreement into effect.

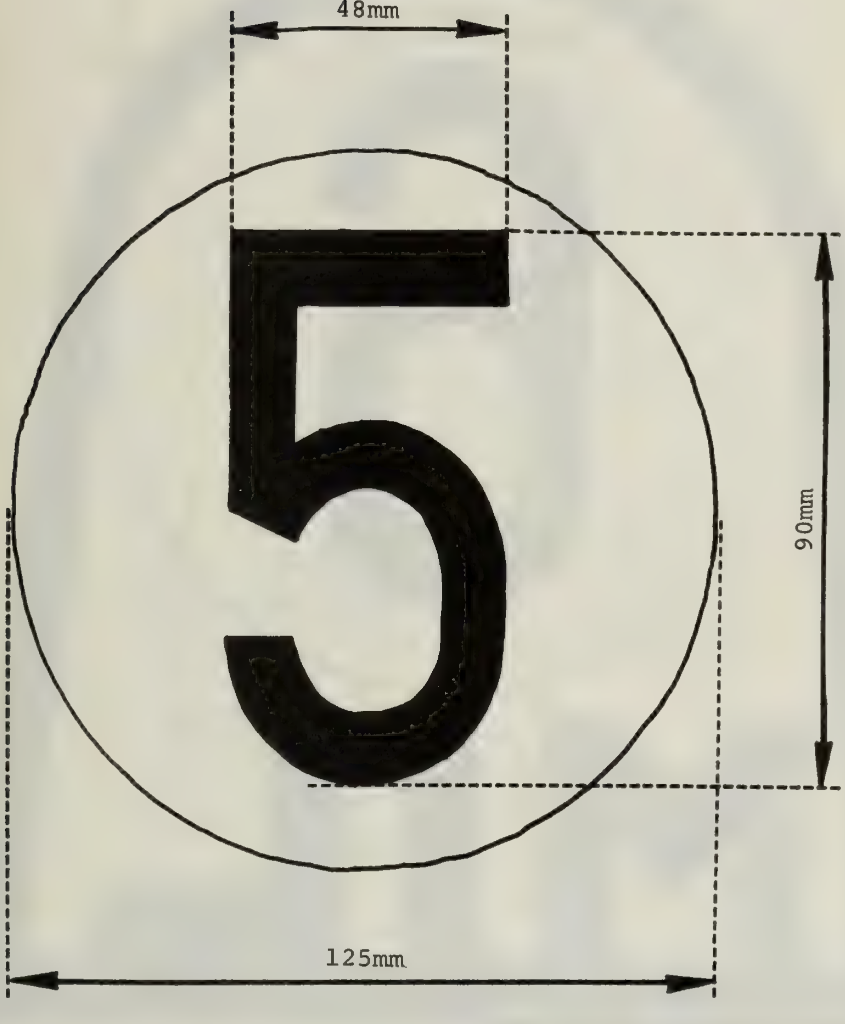
ANNEX A TO STANAG 2175

CLASSIFICATION OF FLAT WAGON

	CATEGORY	FLOOR LENGTH	FLOOR WIDTH		WHEEL BASE	HEIGHT OF LOADING PLANES UNLADEN AND NEW	MINIMUM LOAD WHICH THE WAGON MUST BE ABLE TO CARRY	STRENGTH OVER A GIVEN BEARING LENGTH	REMARKS
			USABLE	END SPAN PASSAGE					
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
	0	L 9m	2,470m	2,470m	8,000m	1,235m h 1,300m	15t c 20t	5t/2.5m	
ORDINARY WAGONS	1	7m L 12m	2,470m	2,470m	8,000m	1,220m h 1,250m	20t	10t/2.5m	
	2	9m L 12m	2,560m	2,560m	8,000m	1,220m h 1,250m	20t	10t/2.5m	
	3	L 12m	2,770m	2,770m	8,000m	1,220m h 1,250m	20t	18.5t/2.5m	
SPECIAL WAGONS	4	L 12,500m	2,740m	2,740m	8,500m a 9,000m	1,220m h 1,270m	40t	19t/3m	
	5	11,260m L 13,100m	2,870m	-	7,260m a 9,300m	1,220m h 1,310m	50t	46t/3.5m	
	6	8,800m L 9,950m	3,110 l 3,150m	-	5,800m a 8,150m	1,240m h 1,310m	48t	48t/3.5m	
	7	L 15m	- 3,110m	-	- 8,400m	1,240m h 1,300m	89t	62t/4m	
	8	L 11,900m	- 3,150m	-	- 7,200m	1,260m h 1,310m	81t	76t/4m	
	9	L 18,500m	2,740m	2,740m	a - 13,000m	h - 1,305m	40t	19t/3m	

Notes:
a = wheel base
l = usable floor width
L = floor length
t = indicates a metric ton
c = minimum load which the wagon must be able to carry
h = height of loading plans unladen and new

MARKING OF FLAT WAGONS

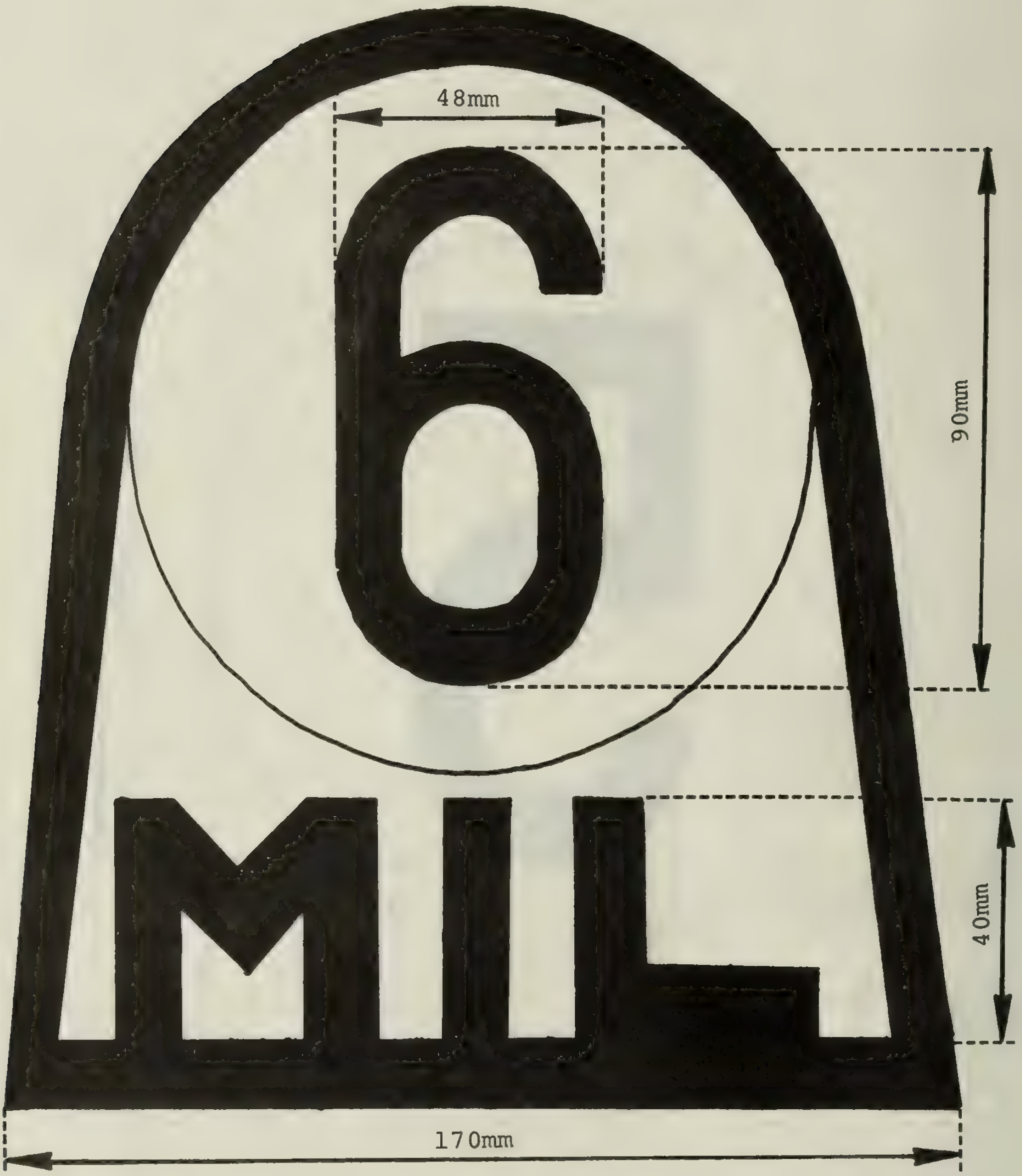


Position: On both sides of the body or of the side member (sole-bar), on the right when facing the wagons.

Colour : Dark figure on white background.

ANNEX C TO STANAG 2175

MARKING OF ITALIAN FLAT WAGONS



Position: On both sides of the body or of the side member (sole-bar), on the right when facing the wagons.
Colour : Dark figure on white background.

ANNEX D TO STANAG 2175

CLASSIFICATION OF ORDINARY MILITARY VEHICLES AND EQUIPMENT

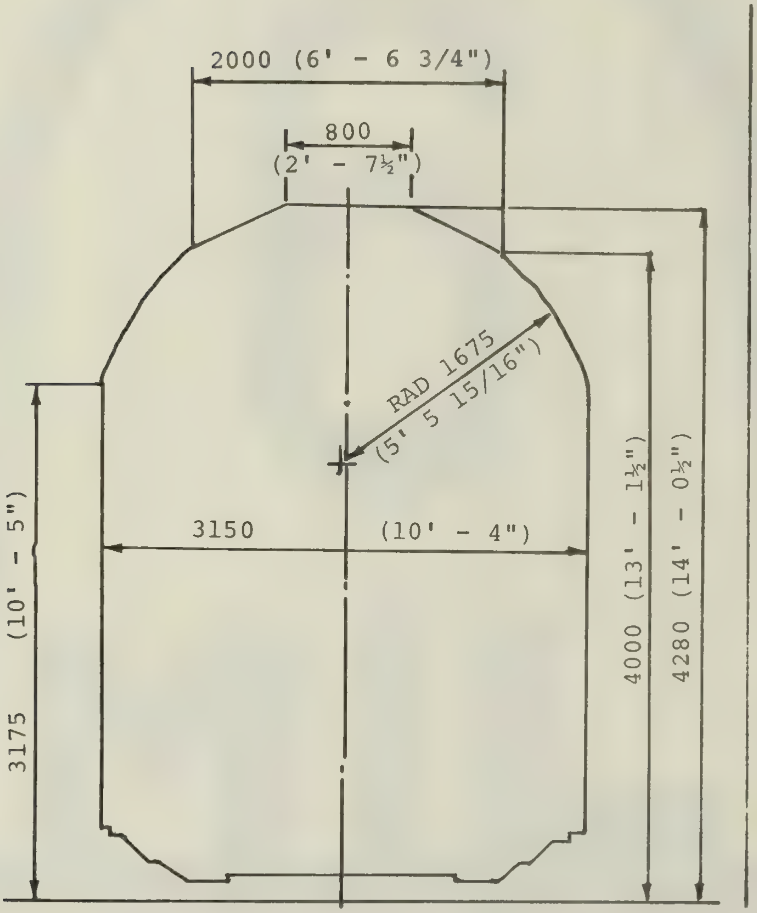
CHARACTERISTICS OF VEHICLES					
CATEGORY (a)	MAXIMUM WEIGHT (b)	MAXIMUM LOAD PER METER (t/m) (c)	MAXIMUM LENGTH (d)	MAXIMUM WIDTH(1) (e)	CATEGORY OF ORDINARY FLAT WAGON APPROPRIATE FOR TRANSPORT (f)
0	15 ton	$\frac{5}{2.50}$	7.80 m	1 m = 2.47 m	0 - 1 - 2 - 3
1	20 ton	$\frac{10}{2.50}$	7.80 m	1 m = 2.47 m	1 - 2 - 3
2	20 ton	$\frac{10}{2.50}$	9.80 m	1 m = 2.56 m	2 - 3
3	20 ton	$\frac{16.5}{2.50}$	12.80 m	1 m = 2.77 m	3

Notes: (1) See explanation of the formula lm = lu + d - 0.100 m at § 11.d.

ANNEX E TO STANAG 2175

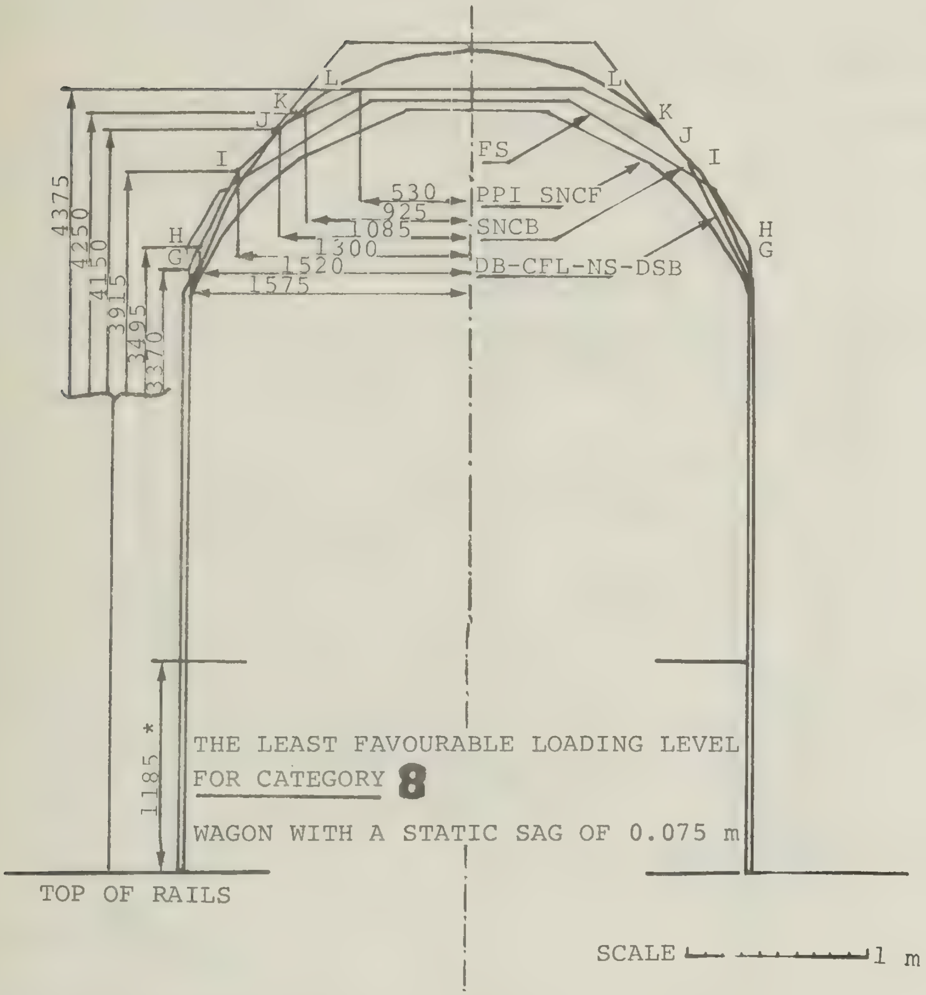
PPI (PASSE-PARTOUT INTERNATIONAL) GAUGES

Dimensions shown thus: millimetres (feet-inches)



ENVELOPE A

STRAIGHT STRETCH CONFIGURATION



* MINIMUM STATIC LOAD HEIGHT

ENVELOPE B

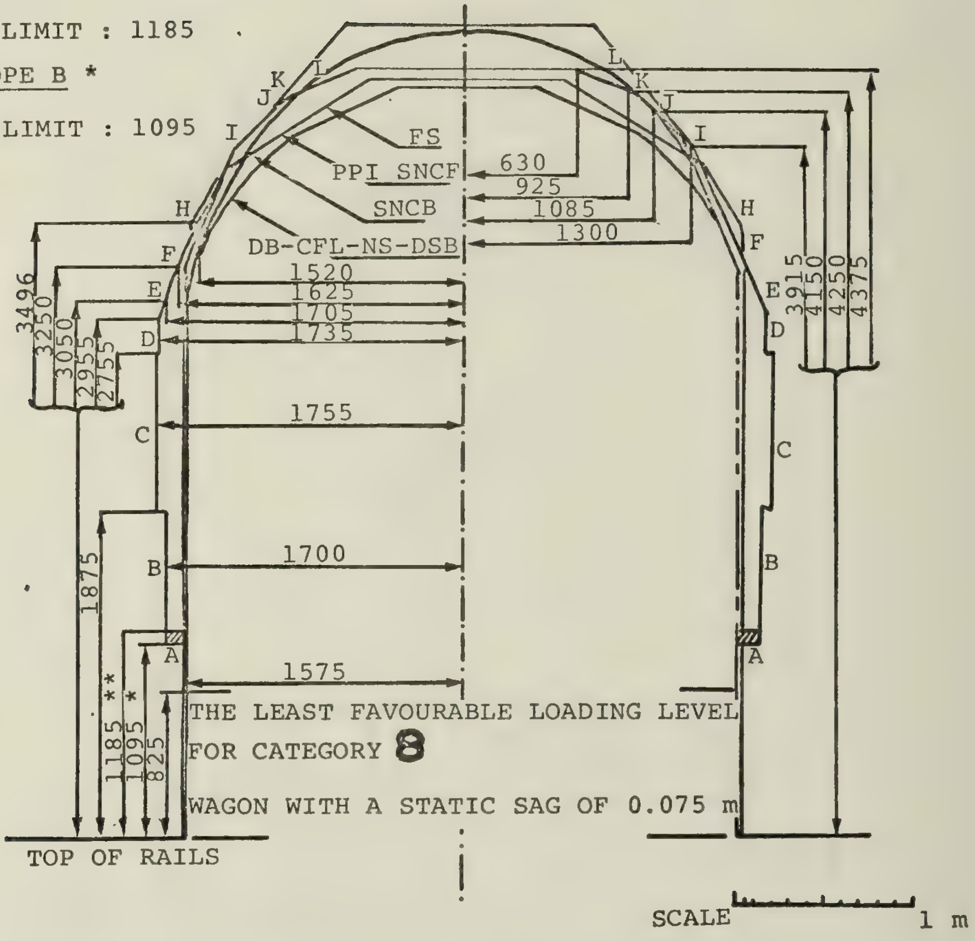
STRAIGHT STRETCH CONFIGURATION

ENVELOPE B **

LOWER LIMIT : 1185

ENVELOPE B *

LOWER LIMIT : 1095



** 1185 = MINIMUM STATIC LOAD HEIGHT FOR CONSIGNMENTS PASSED FOR LINE TRAFFIC AND ON TRACKS RUNNING ALONGSIDE SNCF TYPE PLATFORMS.

* 1095 = MINIMUM STATIC LOAD HEIGHT FOR CONSIGNMENTS PASSED FOR LINE TRAFFIC, BUT NOT ADMITTED ON TRACKS RUNNING ALONGSIDE SNCF TYPE PLATFORMS.

ANNEX H TO STANAG 2175
EXTRACT FROM STANAG 2163

FORMAT FOR VEHICLE WEIGHT AND DIMENSION CARD

VEHICLE WEIGHT AND DIMENSION CARD

1 WEIGHT kilograms/lbs

2 LENGTH meters/inches

3 WIDTH meters/inches

4 HEIGHT meters/inches

5 GROUND PRESSURE/AXLE WEIGHT

FRONT
AVANT

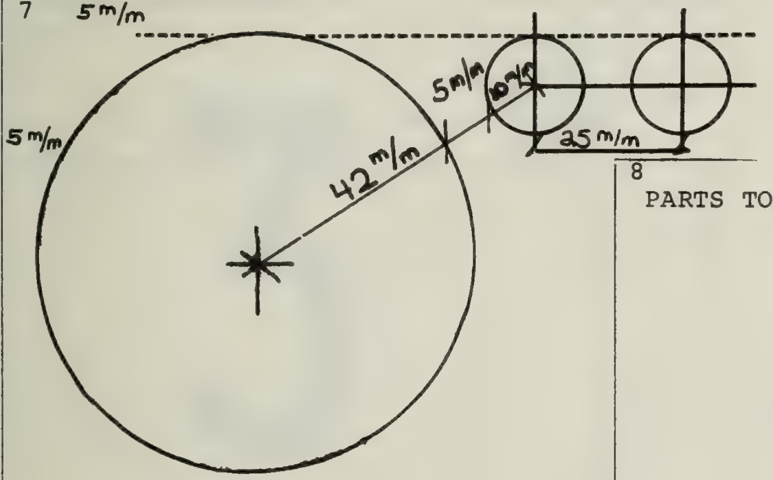
$\frac{kg}{cm^2}$ /psi

REAR

6 MEASUREMENT TONS

(APPLICABLE TO TRANSPORT BY SHIP)

7



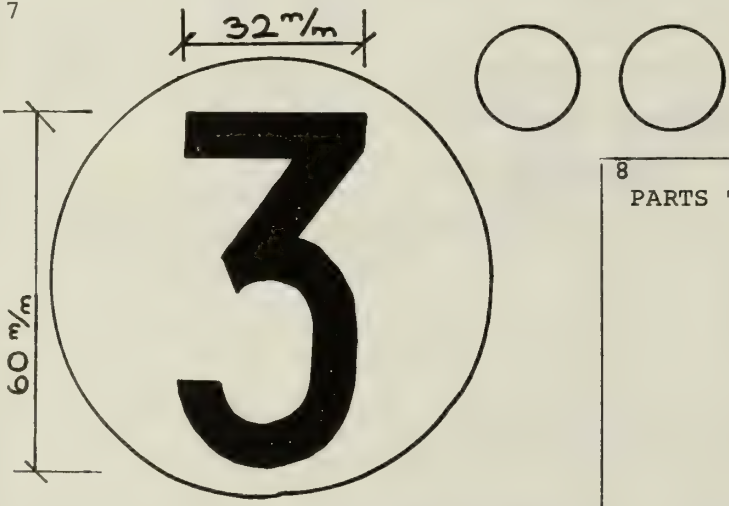
(APPLICABLE TO RAIL TRANSPORT ONLY)

SKETCH BOOK NUMBER

8 PARTS TO BE REMOVED FOR TRANSPORT

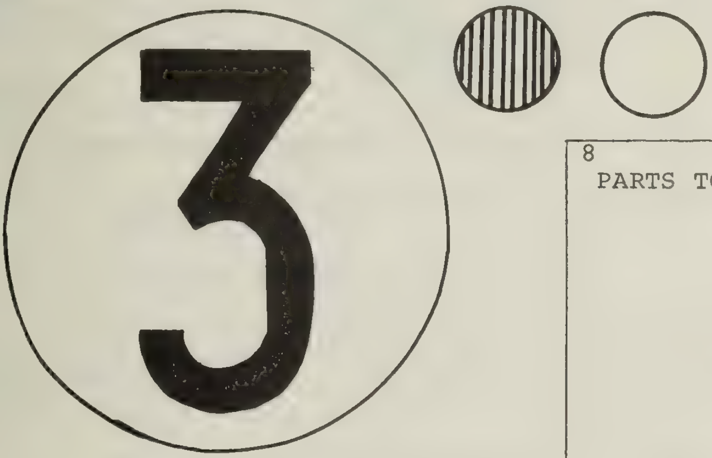
ANNEX I TO STANAG 2175

CLASSIFICATION MARKING OF ORDINARY MILITARY VEHICLES AND EQUIPMENT

VEHICLE WEIGHT AND DIMENSION CARD	
1 WEIGHT kilograms/ lbs	5 GROUND PRESSURE/AXLE WEIGHT FRONT AVANT $\frac{kg}{cm^2}$ /psi REAR
2 LENGTH meters/ inches	
3 WIDTH meters/ inches	6 MEASUREMENT TONS (APPLICABLE TO TRANSPORT BY SHIP)
4 HEIGHT meters/ inches	
7  (APPLICABLE TO RAIL TRANSPORT ONLY)	SKETCH BOOK NUMBER
	8 PARTS TO BE REMOVED FOR TRANSPORT

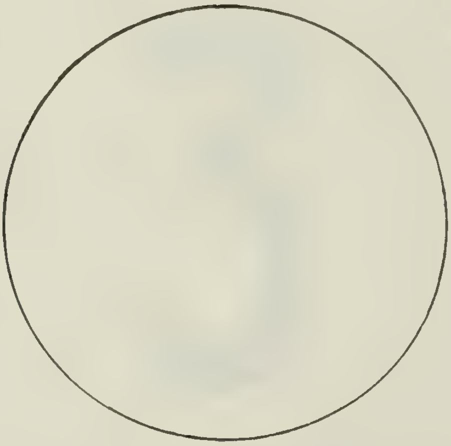
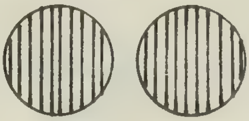
ANNEX J TO STANAG 2175

SAFETY MARKING OF ORDINARY MILITARY VEHICLES AND EQUIPMENT SUBJECT TO SPECIAL DISMANTLING INSTRUCTIONS PRIOR TO THEIR CONSIGNMENT BY RAIL (EXAMPLE)

VEHICLE WEIGHT AND DIMENSION CARD	
1 WEIGHT kilograms/ lbs	5 GROUND PRESSURE/AXLE WEIGHT FRONT AVANT $\frac{kg}{cm^2}$ /psi REAR
2 LENGTH meters/ inches	
3 WIDTH meters/ inches	6 MEASUREMENT TONS (APPLICABLE TO TRANSPORT BY SHIP)
4 HEIGHT meters/ inches	
7  (APPLICABLE TO RAIL TRANSPORT ONLY)	SKETCH BOOK NUMBER
	8 PARTS TO BE REMOVED FOR TRANSPORT

ANNEX K TO STANAG 2175

SAFETY MARKING OF EXCEPTIONAL MILITARY VEHICLES AND EQUIPMENT (EXAMPLE)

<table>
<tr><td colspan="2">VEHICLE WEIGHT AND DIMENSION CARD</td></tr>
<tr><td>1
WEIGHT kilograms/ lbs</td><td rowspan="2">5
GROUND PRESSURE/AXLE WEIGHT
FRONT
AVANT
$\frac{kg}{cm^2}$ /psi
REAR</td></tr>
<tr><td>2
LENGTH meters/ inches</td></tr>
<tr><td>3
WIDTH meters/ inches</td><td rowspan="2">6
MEASUREMENT TONS
(APPLICABLE TO TRANSPORT BY SHIP)</td></tr>
<tr><td>4
HEIGHT meters/ inches</td></tr>
<tr><td rowspan="2">7

(APPLICABLE TO RAIL TRANSPORT ONLY)</td><td>
SKETCH BOOK NUMBER</td></tr>
<tr><td>8
PARTS TO BE REMOVED FOR TRANSPORT</td></tr>
</table>

APPENDIX G

DETAILS OF AGREEMENT (DofA), STANAG 2832
RESTRICTIONS FOR THE TRANSPORT OF MILITARY EQUIPMENT BY RAIL ON EUROPEAN RAILWAYS

Annex A. Passe Partout International (PPI) Gauges.
B. Diagram of Envelope A.
C. Diagram of Envelope B.
D. Specimen Page of Sketchbook.
E. Construction Gauges (to be issued later).
F. Definitions (to be issued later).

AIM

1. The aim of this agreement is to facilitate the movement of trains carrying military equipment on the railway network of Belgium, Denmark, France, Federal Republic of Germany, Italy, Luxembourg, and the Netherlands, by means of:

a. The use of Envelopes A and B (which are both greater than PPI).

b. Setting gauges for the construction of military equipment to be transported by rail.

c. The establishment and updating of a unified sketchbook for the transport of equipment classified as "exceptional."

AGREEMENT

2. The participating nations agree to adopt the methods and procedures stipulated in this agreement as a basis for the movement of trains carrying military equipment, the construction of their military equipment, and the establishment of a unified sketchbook.

GENERAL

3. This Agreement is divided into four parts as follows:

PART 1: DIFFICULTIES ENCOUNTERED AS REGARDS THE TRANSPORT OF MILITARY EQUIPMENT BY RAIL

A. Statement of the Problem

4. The military equipment to be transported by rail is generally heavy and bulky. Furthermore, the possibilities of the existing rail infrastructure and rolling stock are limited. Clearance difficulties are due to the maximum gauges of lines or line sections.

5. a. The difficulties inherent in wagons are due to:

(1) Floor height.

(2) Load capacity.

5. a. (3) Wheel base.

(4) Overhang.

b. This problem is dealt with in STANAG 2175.

B. Conclusions

6. The weight and dimensions of wagons carrying military equipment, therefore, generally exceed the normal technical possiblities of the existing infrastructure and rolling stock. Consequently, either it is impossible to transport military equipment by rail or restrictions have to be imposed on its loading, movement, or construction.

7. In order to permit planning, the speedy transport of military equipment and the crossing of frontiers, the following arrangements have been made in agreement with the Railway Administrations:

a. Definition of maximum size envelopes and movement conditions.

b. Establishment of a unified sketchbook.

PART 2: MAXIMUM SIZE ENVELOPES: ENVELOPES A AND B

A. Concept and Practical Determination of Envelopes A and B

8. Envelopes A and B are designed to facilitate the wartime planning and movement of flat wagons carrying military vehicles and equipment classified as "exceptional transport." The envelopes allow maximum flexibility of movement on European railway systems because the gauges are generally greater than the PPI gauges.

B. General Characteristics of These Envelopes

9. Bearing in mind the current amount of military equipment to be transported, the Group of Experts on the Transport of Out-of-Gauge Equipment considered two envelopes (Envelopes A and B).

a. Both having a vertical axis of symmetry.

b. Having the same contours in the upper portions (from 3.370 m above the rails).

c. One outside, the other within the PPI gauge width.

10. The polygonal contours of the envelopes (in particular, the portion above 3.370 m, which is identical for both) were determined, taking into account every possible route network and in such a way as to avoid any large-scale operating constraints. These envelopes will be found in the attached Annexes B (Envelope A) and C (Envelope B). Envelope B allows for a loading tolerance of ± 15 mm in width.

C. Establishment of Traffic Maps for Envelopes A and B on European Rail Systems

11. Envelopes A and B and their circulation conditions having been defined, each network will prepare circulation boards for each line section showing the operating constraints on its lines.

By assembling these, each network will be able to prepare its own A and B envelope circulation maps.

12. To obtain overall maps of A and B envelope circulation on the networks mentioned in Paragraph 1 by simply juxtaposing the maps for each member country, it is essential that lines should be shown on the national maps on the basis of the standard key described below:

13. a. Single track lines:

________________ - Clear way or minor movement constraints (e.g., local reductions in speed).

.... = Circulation possible with certain major constraints (e.g., no circulation or shunting on a neighbouring line).

~~X X X X X X X X X~~ = Circulation impossible.

b. Twin or Multiple-Track Lines. Circulation conditions are indicated for each track, e.g.:

~~X X X X X X X X X~~ = Circulation impossible on track A.

________________ = Clear way on track B.

14. These maps also show the category of each line according to the permissible weight per linear metre and the axle loading. These categories are defined as follows:

Category	Axle Loading	Weight Per Metre
A	16 m tons	4.8 m tons/metre
B1	18 m tons	5.0 m tons/metre
B2	18 m tons	6.4 m tons/metre
C2	20 m tons	6.4 m tons/metre
C3	20 m tons	7.2 m tons/metre
C4	20 m tons	8 m tons/metre

D. Remarks

15. A vehicle loaded on a NATO category 8 wagon (the wagon takes into consideration when establishing the envelopes) and contained within Envelope A or B (Annexes B or C) can circulate on the lines shown on the relevant traffic map. On the other hand, a study, which can be undertaken only by the Railway Administrations, is necessary to determine whether a vehicle loaded on a wagon other than a category 8 wagon will fit into Envelopes A and B (which must be reduced to take account, interalia, of the difference in wheel base). Such studies are made whenever a sketchbook sheet for a vehicle is prepared (see Part 4).

16. National traffic maps are drawn without taking account of the existence of temporary obstacles, which will be removed in accordance with special instructions to be issued in due course by the appropriate Railway Administrations, so that advantage can be taken of the studies made.

17. In the case of unforeseen obstacles, the Railway Administrations must make an actual check (and not merely a study) to ascertain that there is sufficient room for loaded wagons to pass.

18. Owing to the special problems arising from traffic between France and Italy within the Envelopes A and B, special conditions have been laid down in bilateral agreements between the FS (Italian State Railways) and the SNCF (French State Railways), to which reference should be made in connection with all transport studies involving these two nations.

E. Use of Traffic Maps by the Military Authorities

19. Although the use of these maps is not normally envisaged in peacetime, they will enable military staffs:

- To undertake planning studies.
- To exclude any prohibited routes from these studies.

The attention of military staffs is drawn to the fact that, for all transports inside Envelopes A or B (as indicated in the "group" column of the corresponding sketchbook sheet - see Part 4) and relating to a given ininerary, they must ensure that:

a. The lines to be used are suitable for the appropriate envelope.

b. These lines belong to a category which is compatible with the weight per metre and the axle loading of the transport (as shown in columns 9 and 10 of the appropriate sheet in the sketchbook - see Part 4).

F. Updating and Distribution of Traffic Maps

20. Updating is performed annually by the Railway Administrations in cooperation with the NATO International Staff. The latter is responsible for distributing the maps and amendments to the NATO Military Authorities and Agencies.

PART 3: CONSTRUCTION STANDARDS FOR MILITARY EQUIPMENT

21. The study of construction (manufacturing) gauges relating to military equipment that is to be capable of being transported by rail in Europe within FPI gauge, Envelope A or Envelope B, is contained at Annex E (to be issued later). This Annex is intended for the guidance of engineers and designers of military equipment and sets out the limits of physical shape of such equipment.

PART 4: THE UNIFIED SKETCHBOOK

A. Introduction

22. To facilitate the movement of equipment classified as exceptional, a unified sketchbook has been adopted in which sheets show all vehicles and exceptional equipment in service in the Armed Forces of Belgium, Canada, Denmark, France, the Federal Republic of Germany, Italy, Luxembourg, the Netherlands, the United Kingdom, and the United States. The sheets prepared by the Railway Administrations are grouped into a single "sketchbook" of which the Deutsche Bundesbahn (DB = German Federal Railways) is the custodian.

B. Preparation of Sheets

23. The Armed Forces inform their Railway Administration of the overall external dimensions and weight of the equipment to be used by them on national or foreign territory.

24. Using this information, the Railway Administration carries out loading studies, defines the movement conditions, prepares the appropriate sheet(s), and forwards it(them) to the DB.

25. Sheets for equipment used by the United Kingdom and the United States Forces stationed in Germany are prepared by the DB.

26. The DB is responsible for numbering new sketches, the adoption, where appropriate, of a single sketch when the same equipment exists in several armies, and the establishment of an envelope sketch for several variants of the same equipment.

27. Exceptionally, the SNCF has certain numbers at its disposal for sheets relating to equipment in use in the French Forces. After preparing and numbering a sheet, the SNCF forwards a block to the DB. Should the equipment concerned be already covered by a sheet prepared by another Administration, the DB numbers the single sheet.

28. When the DB has allocated a number to a new sheet, the Administration which prepared it prints the number of copies needed for its own use and sends a block to the other Administrations, which complete it as required, translate the text, and have copies printed and distributed as necessary.

29. If the Armed Forces wish to modify an item of material or equipment, thus altering its characteristics (size or weight), they must notify their national Railway Administration. The latter must treat the modified equipment as new equipment and prepare a new sheet.

C. Classification of Equipment and Numbering of Sheets

30. Military equipment has been classified into FOUR main groups, each of which is subdivided into NINE subgroups.

31. The basic numbering system provides for a FOUR-FIGURE number for each sheet.

a. The first figure on the left denotes the main group into which the equipment is classified:

1 = Wheeled vehicles.
2 = Semitracked vehicles.
3 = Tracked vehicles.
4 = Trailers and semitrailers.

b. The second figure from the left denotes the subgroup into which the equipment is classified witin the main group. Examples: armoured fighting vehicles, utility vehicles, special vehicles, tankers, tanks, tractors, etc. A detailed list of these subgroups is given in the sketchbook.

c. The last two figures are simply a serial number for the equipment within each subgroup. The SNCF has been allocated the numbers 00 to 29 and the numbers 30 to 99 have been assigned to the DB, which is responsible for allocating a number to any sheets forwarded by the other Railway Administrations.

32. Additional Numbering of Sheets. If several methods of loading are possible for the same equipment, a sheet is prepared for each one. In this case, the basic four-figure sheet number is supplemented by a new two-figure number to the right of, and separated by, a full stop from the previous one.

a. The first figure on the left indicates the number of loading methods possible:

"0" = Only one method of loading possible.
"1" = First of two or more methods of loading.
"2" = Second method of loading.
Etc.

b. The second figure indicates the number of vehicles which can be loaded onto a single wagon:

"0" = Only one vehicle can be loaded.
"1" = One vehicle can be loaded onto a wagon but other equipment can also be loaded.
"2" = Two vehicles per wagon.
Etc.

D. General Layout of Sheets

33. Each sheet comprises (see example at Annex D):

a. Front:

(1) The sheet number.

(2) The designation of the vehicle to be transported.

(3) The weight of the load.

(4) An end-on diagram, 1/25th scale, of the vehicle indicating where appropriate, the critical points outside the PPI gauge.

(5) A longitudinal diagram, 1/100 scale, of the vehicle when loaded.

(6) The position of the vehicle on the wagon, the orientation required (where appropriate), and any special loading instructions (e.g., dismantling).

(a) Generally speaking, vehicles must be loaded in the middle of the wagon, both lengthwise and sideways. Unless otherwise stated, it is assumed in the sketches that this condition has been fulfilled, apart from an authorized tolerance of 15 mm per half-width. In certain special cases where this tolerance does not exist, the fact is mentioned under heading 19.

(b) The transverse position of the load is indicated as follows:

- Centered loading: by an asterisk to the left of the 1/25 sketch.

- Off-centered loading: by one asterisk to the left and two asterisks to the right of the 1/25 sketch.

(c) The specific longitudinal loading position is indicated on each sheet (longitudinal 1/100 sketch) by means of dimension figures which locate the load either in relation to the transverse axis of the wagon floor or in relation to its ends. This applies particularly if several vehicles are loaded on one wagon.

(d) For all transport which encroaches on the gauge and where "orientation" is necessary, heading 30 of the sheet designates the critical point by a reference letter (A, B, C, etc.) shown on the 1/25th diagram. This is always mentioned on the exceptional transport authorization.

b. Back:

(1) The wagons to be used, designated either by their NATO category or by their serial number and UIC code letter (column 2).

(2) The wagon characteristics (columns 3 to 10), especially for UK wagons. However, as regards NATO category 4 to 9 wagons, the least favourable characteristics of the various series of wagons in these categories are indicated in column 15.

(3) The location of the critical points outside the PPI gauge.

(4) The permissible weight per metre and the maximum axle loading of the rail wagon (i.e., tare plus load divided by the number of axles).

(5) Information on Circulation Possibilities for the Load Within Envelope Graphs A and B According to the Type or Category of Wagon Shown in Column (2). One of the following five symbols will appear in the "Group" column:

(a) "-" Sign (minus). The out-of-gauge load comes within the PPI gauge. (The load is only exceptional because of its weight.) The SNCF is the only Railway Administration to prepare a loading sketch whenever a load has any special features.

(b) Letter "A". The exceptional load is outside the PPI gauge heightwise only, but comes within Envelope A.

33. b. (5) (c) Letter "B". The exceptional load is outside the PPI gauge widthwise, and possibly heightwise, but comes within Envelope B with a lower limit of 1.185 m.

(d) Letter "B*". The exceptional load is outside the PPI gauge widthwise, and possibly heightwise, but comes within Envelope B with a lower limit of 1.095 m.

(e) + Sign (plus). The exceptional load is not compatible with Envelope B.

E. Procedure for Cancelling Sheets

34. In order to limit the size of the sketchbooks, outdated vehicle sheets must be withdrawn. As, however, certain vehicles may be used by several countries, it is first essential to ensure that the vehicle is no longer in service with any of the Armed Forces.

35. For this purpose, the Military Authorities will forward to their Railway Administration, by 1 January each year, a list of the numbers of the sheets which they wish to delete. These lists will be notified to the DB, which will prepare an up-to-date list and forward this to all Administrations for agreement. The DB will then notify the Administrations of the numbers of the sheets, which it has been unanimously agreed to delete, in the form of a corrigendum to the list of vehicles and other equipment for which a sheet is included in the unified sketchbook.

F. Periodical Updating of Wagon Strength in Service in Each Category or Series

36. Side by side with the updating of the vehicles classified as "exceptional" mentioned above, the wagon strength is periodically revised, normally every two years (on 1 January of even years), by the Railway Authorities of each country in cooperation with the NATO International Staff.

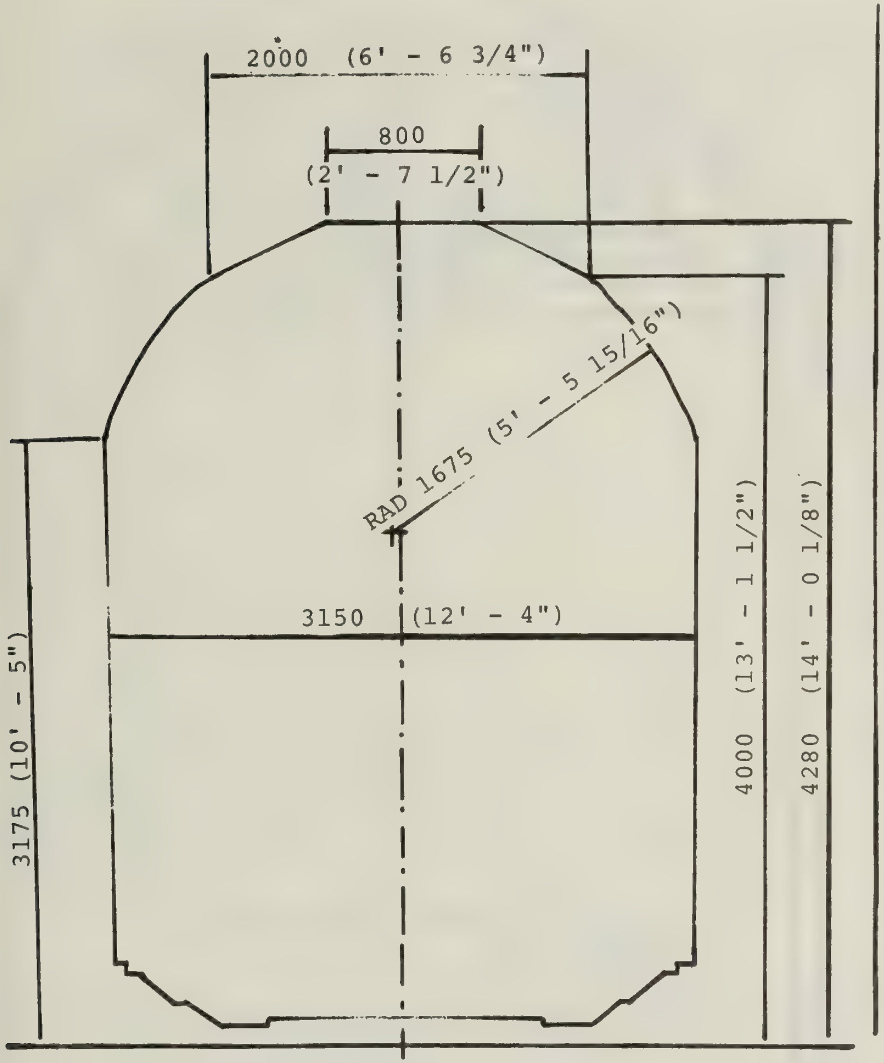
IMPLEMENTATION OF THE AGREEMENT

37. This STANAG is considered to be implemented when a nation has issued the necessary orders/instructions to the forces concerned, putting the procedures detailed in this agreement into effect.

ANNEX A TO STANAG 2832

PPI (PASSE PARTOUT INTERNATIONAL) GAUGES

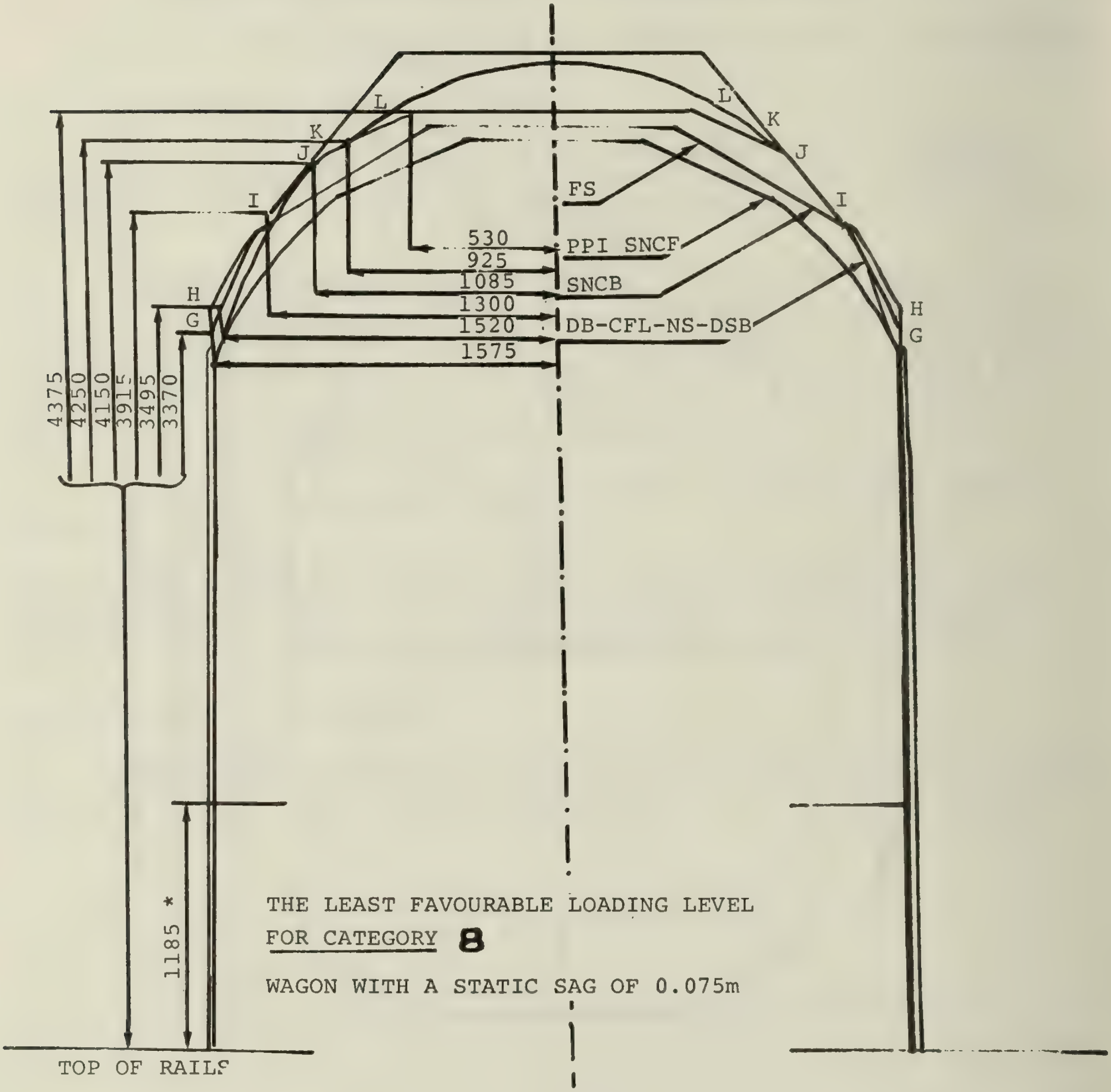
Dimensions shown thus: millimetres (feet-inches)



ANNEX B TO STANAG 2832

ENVELOPE A

STRAIGHT STRETCH CONFIGURATION



* MINIMUM STATIC LOAD HEIGHT

SCALE 1m

ANNEX C TO STANAG 2832

ENVELOPE B

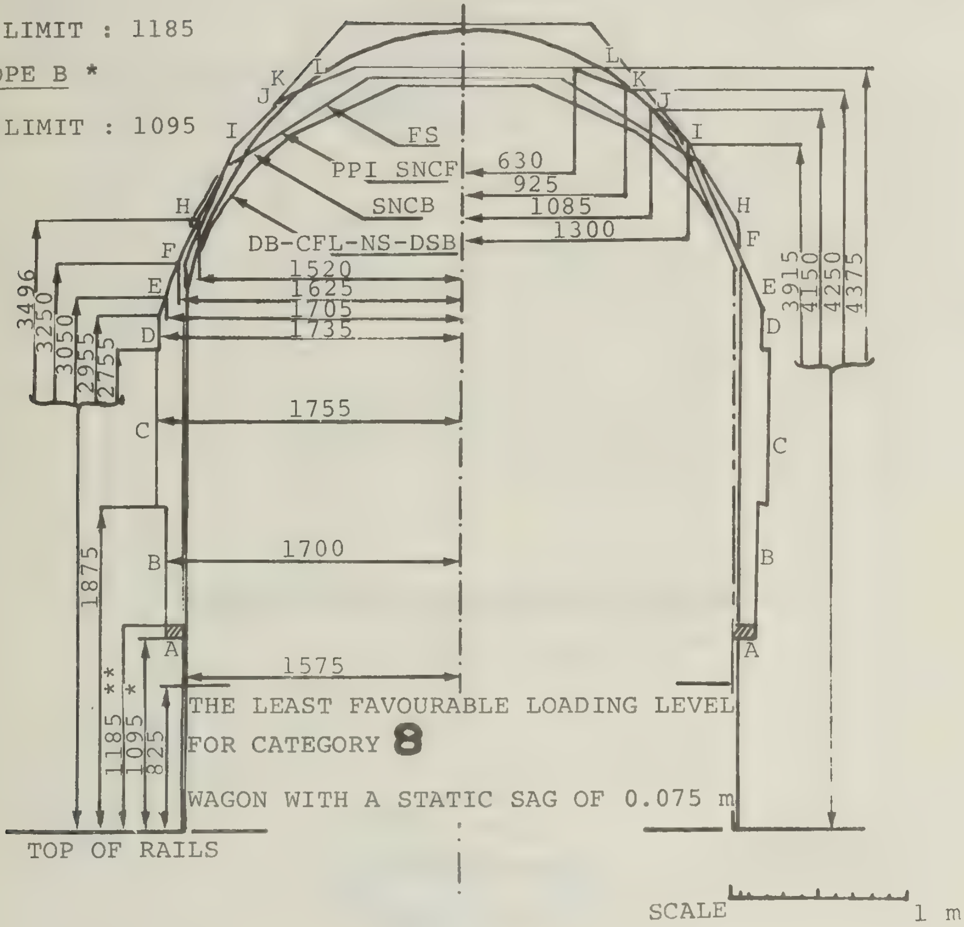
STRAIGHT STRETCH CONFIGURATION

ENVELOPE B **

LOWER LIMIT : 1185

ENVELOPE B *

LOWER LIMIT : 1095

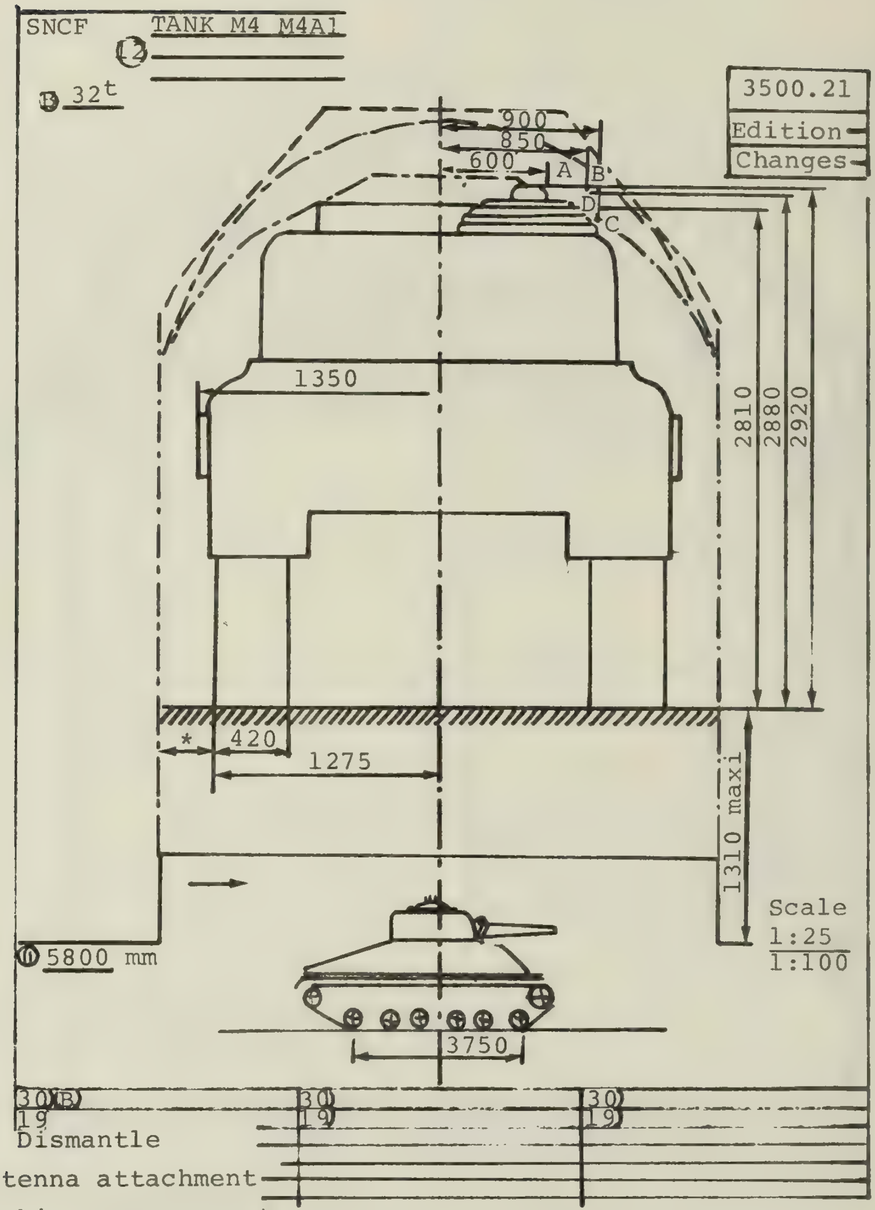


** 1185 = MINIMUM STATIC LOAD HEIGHT FOR CONSIGNMENTS PASSED FOR LINE TRAFFIC AND ON TRACKS RUNNING ALONGSIDE SNCF TYPE PLATFORMS.

* 1095 = MINIMUM STATIC LOAD HEIGHT FOR CONSIGNMENTS PASSED FOR LINE TRAFFIC, BUT NOT ADMITTED ON TRACKS RUNNING ALONGSIDE SNCF TYPE PLATFORMS.

ANNEX D TO STANAG 2832

SPECIMEN PAGE OF SKETCHBOOK



Dismantle
antenna attachment
machine-gun support
or fold it down,
immobilize the turret

3500.21									Critical points of the load outline which are in conflict with the clearance limits								
Group	2	3	4	5	6	7	9	10	Point	12a	12b	13	14	15	16	17	18
																250	250
On weapons figuring in parallel category																	
A		9300	2000	4	14300	22	4	13.5	A		600	4230	4550				
									B		850	4190	4650				
									C		900	4120	4550				
A		6150	2000	4	10800	19	4.7	12.8	A		600	4230	3075				
									B		850	4190	3075				
									C		900	4120	3075				
A		8400	1700.2	6	16400	31	3.8	10.5	A		600	4230	4200				
									B		850	4190	4200				
									C		900	4120	4200				
A		7200	1500.2	6	13200	22.3	4.1	9.1	A		600	4230	3600				
									B		850	4190	3600				
									C		900	4120	3600				

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FMFM 2-2, Amphibious Reconnaissance
FMFM 2-3, Signals Intelligence/Electronic Warfare Operations (U)
FMFM 3-1, Command and Staff Action
FMFM 3-2, Amphibious Training
FMFM 3-3, Helicopterborne Operations
FMFM 4-1, Combat Service Support for Marine Air-Ground Task Forces
FMFM 4-2, Amphibious Embarkation
FMFM 4-3, Landing Support Operations
FMFM 4-4, Engineer Operations
FMFM 4-5, Medical and Dental Support
FMFM 4-6, Movement of Units in Air Force Aircraft
FMFM 5-1, Marine Aviation
FMFM 5-3, Assault Support
FMFM 5-4, Offensive Air Support
FMFM 5-5, Antiair Warfare
FMFM 5-6, Air Reconnaissance
FMFM 6-2, Marine Infantry Regiment
FMFM 6-3, Marine Infantry Battalion
FMFM 7-1, Fire Support Coordination
FMFM 7-2, Naval Gunfire Support
FMFM 7-4, Field Artillery Support
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5. MARINE CORPS ORDER

MCO 3120.3, The Organization of Marine Air-Ground Task Forces

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DEPARTMENT OF THE NAVY
HEADQUARTERS UNITED STATES MARINE CORPS
WASHINGTON, D.C. 20380

1 February 1978

FOREWORD

1. PURPOSE

This publication, FMFM 6-2, Marine Infantry Regiment, sets forth the doctrine, tactics, and techniques to be employed in operations and training within the Fleet Marine Forces.

2. SCOPE

This manual provides information and guidance for the infantry regimental commander and his staff in the planning and conduct of combat operations. It sets forth the principles applicable to the tactical employment of the Marine infantry regiment and discusses organization for combat and fundamental considerations in the conduct of offensive and defensive actions incident to amphibious operations and subsequent operations ashore.

3. SUPERSESSION

FMFM 6-2 dated 6 February 1974.

4. CHANGES

Recommendations for improving this manual are invited. Comments and recommended changes should be forwarded to Commanding General, Marine Corps Development and Education Command (Code D03), Quantico, Virginia 22134.

5. CERTIFICATION

Reviewed and approved this date.

BY DIRECTION OF THE COMMANDANT OF THE MARINE CORPS

JC Fegan

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MARINE INFANTRY REGIMENT

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USER SUGGESTION FORM

From:

To: Commanding General, Marine Corps Development and Education Command
(Code D 03), Quantico, Virginia 22134

Subj: FMFM 6-2, Marine Infantry Regiment; recommendation(s) concerning

1. In accordance with the Foreword to FMFM 6-2, which invites individuals to submit suggestions concerning this FMFM directly to the above addressee, the following unclassified recommendation(s) is(are) forwarded:

a. ITEM #1 (May be handwritten; if more space is required, use additional sheets and envelope.)

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(2) Comment: (Explain in sufficient detail to identify the points of the suggestion.)

(3) Recommendation: (State the exact wording desired to be inserted into the manual.)

b. ITEM #2

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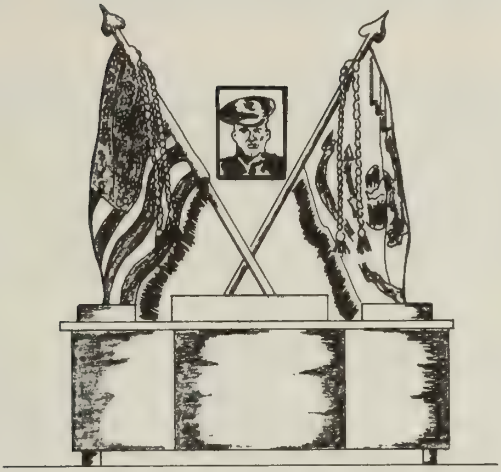


CHAPTER 1

ORGANIZATION AND COMMAND

Section I. INTRODUCTION

1101. GENERAL

a. This manual sets forth the mission, organization, and doctrine for the employment of the Marine infantry regiment in amphibious operations and subsequent operations ashore. It is designed primarily to provide information and guidance which will assist the commander and his staff in planning for and conducting combat operations. It should be used in conjunction with LFM 01, Doctrine for Amphibious Operations; FMFM 3-1, Command and Staff Action; FMFM 6-1, Marine Division; FMFM 6-3, Marine Infantry Battalion; and other manuals of the FMFM series.

b. Consideration is given to the tactical implications of nuclear weapons and rapid means of mobility, particularly that of the helicopter based ashore or aboard amphibious assault ships. Although the principles of war are not changed by employment of nuclear weapons and rapid means of mobility, battlefield tactics and techniques are modified in their application to varying degrees.

1102. OPERATIONAL ENVIRONMENT

a. General

(1) The operational environment is a composite of the conditions, circumstances, and influences which affect the employment of military forces and which bear on the decisions of the commander.

(2) The Marine infantry regiment must be prepared to conduct operations under a wide variety of conditions ranging from situations short

of war to general war. The operational environment is determined by the nature of war, organization of the command, the area of operations, and the type of operation involved.

b. Nature of the War.--Conflicts between nations may vary from mere disagreements and conflicts of interest to basic and irreconcilable differences in national ideologies and objectives. The former are often subject to resolution by arbitration or concession, but may require "show of force" or limited low-intensity conflict operations. In the latter type, differences may be so great that mid- or high-intensity conflicts result. Regardless of the level of intensity, the regimental commander must be prepared to conduct operations independently or as a subordinate maneuver element of a larger force.

c. Organization of the Command.--Operations within the parameters of any level of warfare may find the Marine infantry regiment fighting independently, as part of a joint or combined operation, or as part of an international police force. Determination of the organization will directly affect the application of doctrine based on possible divergence of doctrine, technique, available weapons systems, and custom.

d. Area of Operations.--That portion of an area of conflict necessary for military operations, either offensive or defensive, pursuant to an assigned mission, and for the administration incident to such military operations.

e. Type of Operation.--Recognizing the type of operation or the phase of that operation involved is probably the most important element of the operational environment at the regimental level. Once determined, the type of operation establishes the tactical methods and techniques to be employed in accomplishing the assigned mission.

f. Helicopter Mobility.--The advent of nuclear weapons and the helicopter has had profound effects on the organization, equipment, and tactical concepts of the Fleet Marine Force. The most significant of these effects is the increasing importance of flexibility and mobility. Combat is characterized by fast moving, highly fluid actions which place a premium on speed, shock effect, and surprise. The conduct of night amphibious operations is feasible by employing surface or helicopterborne assaults, or a combination of the two types, in order to gain surprise and flexibility. Emphasis is placed upon the quality, quantity, and timeliness of combat intelligence. Reconnaissance and surveillance must extend over wider areas to allow for the increased combat radius of the Marine regiment, and will require increased effort and allocation of means. Helicopters free the tactical commander from total dependence upon land lines of communication for combat operations and logistic support. Helicopters also give the commander the option of greater mobility. Whether employed during day or night operations, land warfare or amphibious operations, he can move his forces over terrain previously considered impassable. The mobility of fire support artillery and other combat support units is equal to or exceeds that of infantry units, allowing closer integration of balanced fighting forces which can move rapidly over long distances to strike the enemy. The combat power possessed by today's Marine air/ground team, properly applied by aggressive, imaginative, and resourceful leaders, will ensure success on the battlefield.

g. Nuclear Weapons.--The following general considerations apply when nuclear weapons are employed by both participants or when operations are conducted in the face of nuclear threat. The application of these is a matter of degree, depending on the nature of the nuclear threat, mission, friendly and enemy capabilities, terrain, weather, and other related factors.

(1) Terrain is a vital consideration; when enemy nuclear weapons exist, large bodies of troops should not be deployed on easily identifiable terrain features. Instead, key terrain is controlled by securing the approaches to it, by maintaining constant surveillance around and within it, and by controlling it with minimum forces or by fire.

(2) Nuclear combat can reflect sudden and drastic changes in the tactical situation. This requires a responsive and flexible system of command with firm, centralized direction, decentralized execution, and a doctrine that stresses initiative and flexibility on the part of subordinate commanders. Regimental commanders may have many opportunities for decisive action, but the opportunities will usually be of limited duration. The authority to use nuclear weapons provides opportunities for the regiment and its subordinate units to undertake bold and aggressive action, even against numerically superior forces.

(3) Large concentrations of troops and equipment cannot ensure an increase in combat capability sufficient to offset the corresponding increase in vulnerability to nuclear attack. Nevertheless, it is inevitable that forces occasionally concentrate to accomplish a particular mission. Concentrations should be achieved rapidly and should exist for as limited a time as possible.

(4) For exploitation of friendly nuclear fires in both the attack and defense, the regiment achieves a high degree of mobility through use of the helicopter, tracked vehicles, and motor transport; however, when weather or other conditions restrict the use of vehicles and helicopters, the regiment moves primarily on foot.

(5) Active and/or passive measures may be employed in the face of nuclear threat. Active measures, which include air defense, counterbattery fires, and similar activities, are largely the responsibility of higher echelons. Passive protective measures are a regimental responsibility and they fall into two categories: defense against troop detection by the enemy and defense against enemy nuclear attack.

(6) Warfare under nuclear conditions, or under the threat of nuclear attack, emphasizes the following factors:

(a) Separation.--The regimental commmander separates his forces consistent with the accomplishment of his mission. He does not apply arbitrary figures or the radii of effects of a specific weapon to determine the extent of his subordinate unit separation. Instead, his decisions are made only after an estimate of one or all of the following: mission, terrain, relative strength and mobility of the opposing forces, weather and reconnaissance, and surveillance means available.

(b) Mobility.--Mobility is an important factor in reducing vulnerability to enemy nuclear weapons and for creating favorable conditions for aggressive action against the enemy.

(c) Communications.--The key to control lies in adequate communications. Communication means must permit adequate control under

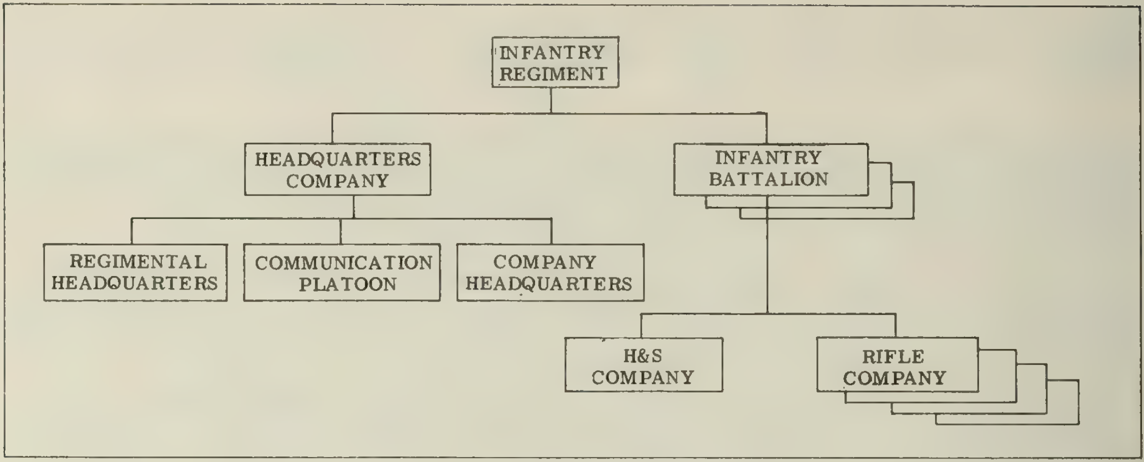


Figure 1.--Marine Infantry Regiment.

conditions of rapid maneuver and wide separation of units. Whenever possible, additional communications are provided. Normal radio operating difficulties, enemy interference, and unit separation emphasize the need for all means of alternate communications.

1103. MISSION

The mission of the Marine infantry regiment is to locate, close with, and destroy the enemy by fire and maneuver, or to repel his assault by fire and close combat.

1104. ORGANIZATION

a. The Marine infantry regiment is the largest maneuver element of the Marine division. It consists of a headquarters company and three infantry battalions. (See fig. 1.)

(1) The regimental headquarters company contains a regimental headquarters, a communication platoon, and a company headquarters. It is primarily a combat headquarters (see fig. 2). The regimental commander, with the aid of his regimental headquarters staff, plans and supervises training, conducts operational planning, and exercises tactical control of the regiment in combat. Although administrative and supply support is direct from division to the infantry battalion, the regimental commander ensures continued logistic support by stating his requirements to the unit responsible for supporting the regiment and specifying conditions under which this support will be rendered. He then supervises the fulfillment of this support by monitoring the administrative and supply functions between the infantry battalion and division rather than through active participation as an intermediate headquarters.

(2) The Marine infantry battalion is the basic tactical unit of the division. Within the Marine infantry regiment there are three infantry battalions. Each of these battalions has sufficient combat power to operate as a part of a larger force or on independent missions for limited durations

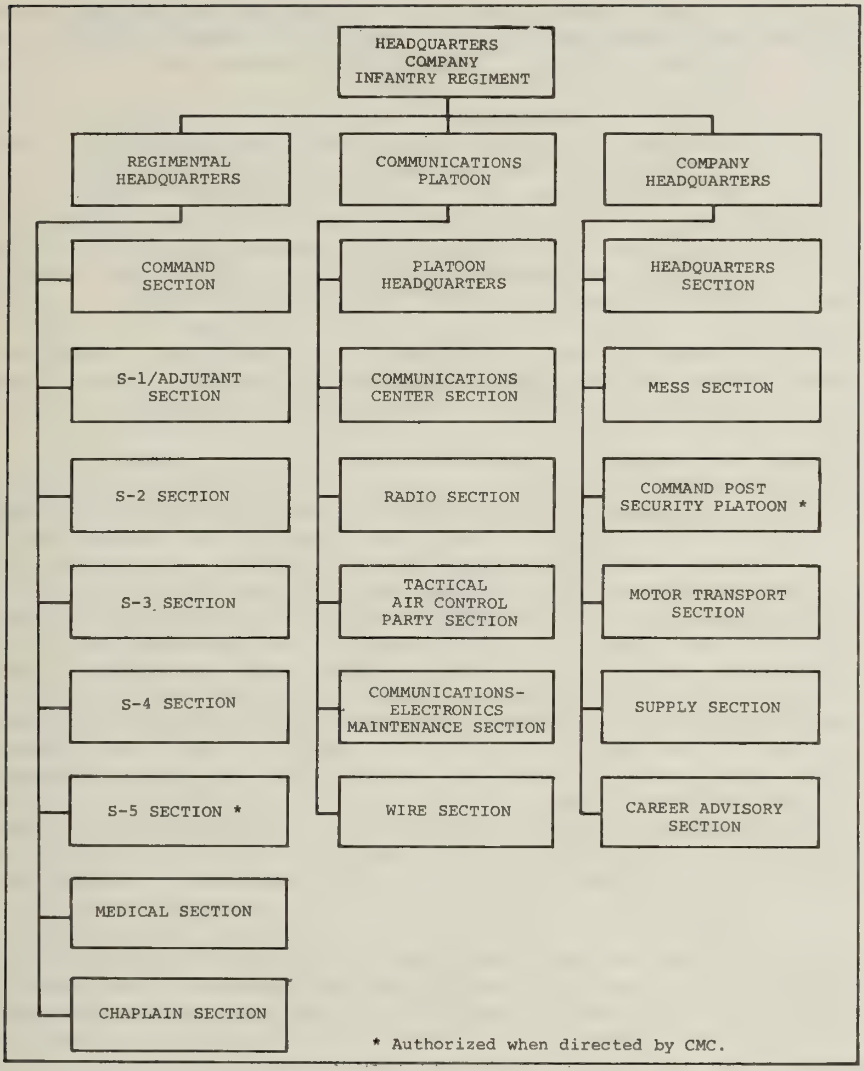


Figure 2.--Headquarters Company, Marine Infantry Regiment.

of time. The Marine infantry battalion is organized to provide a balanced firepower and maneuver team capable of being helicopter lifted. The battalion is capable of self-administration and can accomplish its organic supply functions. For a detailed discussion of mission, organization, and tactical employment of the Marine infantry battalion in combat, refer to FMFM 6-3, Marine Infantry Battalion.

b. The organizational structure of the Marine infantry regiment is designed to:

(1) Provide a headquarters for the command of organic battalions and any attached units.

(2) Facilitate mobility. Regimental headquarters is helicopter transportable and possesses sufficient organic transportation to operationally control its battalions. Battalions possess sufficient transportation for mobility of their heavy weapons.

(3) Facilitate the organization of task groups of infantry battalions and reinforcing units from division or force troops. The triangular structure facilitates the rapid creation of three major task groups by reinforcing each infantry battalion with artillery, tank, and other supporting units required for specific operations. It is anticipated that warfare will require far greater use of task force organization for accomplishment of specific missions.

(4) Provide for the training of subordinate elements. Since the basic prerequisite for success in combat is effective training, the responsibility for training must be firmly, permanently, and clearly fixed.

1105. CONCEPT OF EMPLOYMENT

a. The Marine infantry regiment is normally employed as a part of the Marine division in amphibious operations or as the ground combat element of the Marine air-ground task force (MAGTF); i.e., Marine amphibious brigade (MAB). Within its battalions, it has sufficient combat power to operate effectively under the varied conditions of the battlefield. While the tables of equipment provide adequate vehicular transportation to ensure cross-country mobility of heavy weapons and equipment, the organic mobility of the regiment itself lies in the marching ability of the individual Marine. The entire regiment, however, is capable of helicopter or fixed-wing transport aircraft lift and can achieve complete vehicular mobility with the support or attachment of appropriate motor transport or assault amphibian units. Organization and equipment of the regiment is predicated upon the need for rapid movement in dispersed formations. The regiment has the necessary staff and communications to control and coordinate its organic units, as well as any reinforcing units which may be assigned.

b. Although the regiment is capable of operating as part of the division without reinforcements, the usual requirements of sustained combat dictate that it be reinforced by combat support and combat service support elements. The type and size of the reinforcing units will vary according to the nature and duration of the operation, the mission assigned, the terrain, and the enemy situation.

c. Since the Marine infantry regiment has no fire support weapons organic to it, except for the mortars and direct fire antitank weapons of the three infantry battalions, additional fire support is provided from external sources.

(1) The artillery battalion of the artillery regiment provides the minimum artillery support required by a committed infantry regiment. When required, additional support is available from other units of the artillery regiment.

(a) When the artillery battalion is assigned the tactical mission of direct support of an infantry regiment, it provides liaison officers to the regimental and battalion headquarters and forward observers to the rifle companies, has as its zone of fire the zone of action of the regiment, and responds to calls for fire from all echelons down to the rifle company. The further suballocation of individual batteries to support designated infantry battalions is not normally necessary.

(b) When an artillery battalion is attached to an infantry regiment, the appropriate tactical mission must be determined by the regimental commander. (ATTACHMENT IS A STATUS, NOT A MISSION.)

(c) When naval gunfire ships are assigned to support the infantry regiment, the artillery battalion provides a naval gunfire liaison officer and sufficient communication personnel and equipment from its headquarters battery to operate in the infantry regiment fire support coordination center (FSCC) and assist in the planning, coordination, and control of the supporting naval gunfire. This battalion also contains two shore fire control parties (SFCP) for assignment to supported infantry battalions.

(2) Air support is provided by elements of the Marine aircraft wing. Close air support, reconnaissance, and observation aircraft in support of the regiment are controlled by the tactical air control parties organic to the subordinate infantry battalions. Missions are monitored by the regimental air liaison officer in the FSCC.

d. Combat support and combat service support units, which are organic to the Marine division, may be attached to or placed in support of the Marine infantry regiment in order that it will have the requisite means to accomplish assigned missions.

(1) The organic antitank capability of the Marine infantry regiment consists of light, direct fire antitank weapons organic to the infantry battalions.

(2) A combat engineer company of the combat engineer battalion, Marine division often supports or is attached to the Marine infantry regiment to provide combat engineer support. The combat engineer company is organized to provide one combat engineer platoon for support of each infantry battalion. Although the combat engineer platoons may operate under the centralized control of the combat engineer company commander, they frequently operated under the decentralized control of platoon commanders. In the latter case, the combat engineer company commander then serves as a special staff officer for the regimental commander.

(3) For reconnaissance and surveillance of areas between and forward of the widely separated battalions of an infantry regiment, a reconnaissance company of the division reconnaissance battalion may be assigned to the infantry regiment.

(4) A sensor employment squad (SES) of the sensor control and management platoon may be attached to the infantry regiment for the employment of remote sensors. The SES can plan for sensor employment and analyze and evaluate the resulting remote sensor data.

(5) Organic motor transport within the infantry regiment is sufficient to provide cross-country mobility for the regiment's heavier weapons and equipment. If operational requirements are such that additional motor transport is required, the truck company or elements of the motor transport battalion, FSSG are placed in support of, or are attached to, the regiment. The entire truck company is required to lift the assault elements of two infantry battalions.

(6) To provide logistic support for an RLT, elements of the landing support company will be attached to provide the nucleus for the helicopter support team (HST). To provide logistic support and essential command/control elements in support of RLT elements landing over a beach, elements of the landing support company as well as elements of the force service support group (FSSG) may be placed in support of the RLT. (See FMFM 4-1, Combat Service Support for Marine Air-Ground Task Forces.)

e. Force troops or force service support group units may be placed in support of, or attached to, the Marine infantry regiment as required for specific operations. These units could include artillery, reconnaissance, communication, and military police.

1106. PRINCIPLES OF WAR

The principles of war are fundamental truths governing the prosecution of war. The effective application of these principles is essential to the proper exercise of command and to the successful conduct of military operations. These principles are included as a review for the commander and his staff to be used when applying doctrine contained in this manual.

a. Principle of the Objective.--Every military operation must be directed toward a clearly defined, decisive, and attainable objective. The ultimate military objective of war is the destruction of the enemy's armed forces and his will to fight. The objective of each operation must contribute to this ultimate objective. Each intermediate objective must be such that its attainment will most directly, quickly, and economically contribute to the purpose of the operation. The selection of an objective is based upon consideration of the means available, the enemy, and the area of operations. Every commander must understand and clearly define his objective and consider each contemplated action in light thereof.

b. Principle of the Offensive.--Offensive action is necessary to achieve decisive results and maintain freedom of action. It permits the commander to exercise initiative and impose his will upon the enemy, to set the pace and determine the course of battle, to exploit enemy weaknesses and rapidly changing situations, and to meet unexpected developments. Defensive action may be required, but it should be deliberately adopted only as a temporary expedient while awaiting an opportunity for offensive action or for the purpose of economizing forces on a front where a decision is not sought. Even during the defense, the commander seeks every opportunity to seize the initative and achieve decisive results by offensive action.

c. Principle of Mass.--Superior combat power must be concentrated at the critical time and place for a decisive purpose. Superiority results from the correct combination of the elements of combat power. Proper application of the principles of war may permit numerically inferior forces to achieve decisive combat superiority.

d. Principle of Economy of Force.--Skillful and prudent use of combat power enables the commander to accomplish the mission with minimum expenditure of resources. This principle is the corollary of the principle of mass. It does not imply husbanding but rather the measured allocation of available combat power to the primary task as well as secondary tasks such as limited attacks, the defense, deception, or even retrograde action in order to ensure sufficient combat power at the point of decision.

e. Principle of Maneuver.--Maneuver is an essential ingredient of combat power. It contributes materially in exploiting successes, preventing enemy freedom of action, and reducing vulnerability. The object of maneuver is to dispose forces in such a manner as to place the enemy at a disadvantage and thus achieve results which would otherwise be more costly in men and material. Successful maneuver requires flexibility in organization, administrative support, and command and control. It is the antithesis of permanence of location and implies avoidance of stereotype patterns of operation.

f. Principle of Unity of Command.--The decisive application of full combat power requires unity of command. Unity of command obtains unity of effort by the coordinated action of all forces toward a common goal. While coordination may be attained by cooperation, it is best achieved by vesting a single commander with the requisite authority.

g. Principle of Security.--Security is essential to the preservation of combat power. Security is achieved by measures taken to prevent surprise, preserve freedom of action, and deny the enemy information of friendly forces. Since risk is inherent in war, application of the principle of security does not imply undue caution and the avoidance of calculated risks. Security frequently is enhanced by bold seizure and retention of the initiative, which denies the enemy the opportunity to interfere.

h. Principle of Surprise.--Surprise can decisively shift the balance of combat power. By surprise, success which greatly exceeds the effort expended may be obtained. Surprise results from striking an enemy at a time, place and in a manner for which he is not prepared. It is not essential that the enemy be taken unaware, but only that he becomes aware too late to react effectively. Factors contributing to surprise include speed, deception, application of unexpected combat power, effective intelligence and counterintelligence including communication and electronic security, and variations in tactics and methods of operation.

i. Principle of Simplicity.--Simplicity contributes to successful operations. Direct, simple plans and clear, concise orders minimize misunderstanding and confusion. If all factors are equal, the simplest plan is preferred.

Section II. REGIMENTAL COMMANDER AND HIS STAFF

1201. REGIMENTAL COMMANDER

a. General

(1) Command is the authority which a commander in the military service lawfully exercises over his subordinates by virtue of rank or assignment. Command includes the authority and responsibility for effectively using available resources and for planning the employment of, organizing, directing, coordinating, and controlling military forces for the accomplishment of assigned missions. It also includes responsibility for health, welfare, morale, and discipline of assigned personnel.

(2) The commander is responsible for everything the regiment does or fails to do. He meets his responsibilities by sound planning, by making timely decisions, by issuing effective orders, and by personal supervision and leadership. His duties require a thorough understanding of the tactical and technical employment, the capabilities and the limitations of all organic units, and of the units which may be attached to or in support of the regiment.

b. Exercise of Command

(1) The commander prescribes policies, missions, and standards for the regiment. Effective operation requires that sufficient authority be delegated to subordinates so that they can accomplish tasks for which they are responsible.

(2) The commander ensures that his standards are maintained; he does this by means of personal and staff visits and inspections coupled with followup action. The combat effectiveness of the unit can be determined only by a continuous evaluation of the indications of leadership--morale, esprit de corps, discipline, and proficiency. The commander will ensure the personal well-being of subordinates by providing for their physical comfort, promoting confidence in and respect for their leaders, providing a sense of accomplishment, and fostering positive mental attitudes.

c. Relations With Staff.--The commander uses his staff to acquire information; make recommendations; prepare estimates, detailed plans, and orders implementing his decisions; coordinate plans and operations; and relieve him of other details. He maintains a close relationship with his staff officers, encourages frank appraisals and free expression of ideas, and in turn, keeps his staff fully informed.

d. Commander in Combat

(1) The regimental commander uses all available means to accomplish his mission. His plans, orders, and supervision ensure that the actions of all units contribute effectively toward that end. When additional combat support or combat service support is required to accomplish the mission, the commander takes action to obtain it. He coordinates the activities of his command with those of adjacent and supporting units.

(2) The regimental commander goes where he can best direct and control the operation. He may be at an observation post, with the main

attack element, or anywhere else in his area of operations where his presence is required. Before he leaves the command post, he informs his staff of his itinerary or destination and of plans to be made or action to be taken if the situation changes. When he is away from the command post, he keeps in contact with it by radio, telephone, or other means. Normally, he will keep in contact with higher authority, or if such contact is not possible, he will arrange for such contact to be relayed to him. If he issues orders while away from the command post or obtains pertinent information about the situation, he informs his staff and commanders at the first opportunity.

(3) Although the command post is the nerve center of the regiment, the commander will frequently be required to move to other locations to observe or direct the action. Whether he moves to an observation post, or flies over the battle area in a command and control helicopter, his object is to influence the action by leadership and to establish closer control. The employment of the helicopter allows the commander to move to the point of decision to assess the situation without becoming directly involved or prompting the initiative of subordinate commanders. Personal leadership on the battlefield is an admirable quality, but the regimental commander cannot become so involved in small actions as to lose sight of the accomplishment of the overall mission.

e. Relations With Organic and Attached Unit Commanders and Troops

(1) Organic.--The relationship of the regimental commander with his unit commanders is direct and personal. He encourages them to utilize his staff but to deal directly with him when appropriate. He makes inspections and informal visits to his unit commanders and troops. These actions promote confidence, respect, loyalty, and understanding while giving the commander a firsthand knowledge of the tactical situation and the status of the unit.

(2) Attached.--Attachment is a method of control and a command status, not a mission. JCS Pub 1 defines attach as: "The placement of units or personnel in an organization where such placement is relatively temporary. Subject to limitations imposed by the attachment order, the commander of the formation, unit, or organization receiving the attachment will exercise the same degree of command and control thereover as he does units and persons organic to his command. However, the responsibility for transfer and promotion of personnel will normally be retained by the parent formation, unit, or organization." When a unit is attached to a regiment, the regimental commander assumes logistic, as well as administrative, responsibility for the unit. An attached unit commander acts as an advisor to the regimental commander on the employment of and missions assigned to the attached unit.

(3) Supporting.--A supporting unit provides specific tactical and/or logistic support to the regiment. Normally, a unit in support of a regiment is assigned a direct support mission. JCS Pub 1 defines direct support as: "A mission requiring a force to support another specific force and authorizing it to answer directly the supported force's request for assistance." The parent headquarters of a unit assigned a direct support mission retains administrative control and limited operational control, and provides logistic support; however, the application of such control must not interfere with the tactical operations of the supported unit. Limited operational control of the direct support unit consists of technical supervision of certain operations.

f. Relations With Other Units

(1) Supporting Units.--The commander of the supporting unit advises the regimental commander on the capabilities, limitations, and employment of the supporting unit and is responsible for establishing communications with the supported unit. The regimental commander ensures that adequate communications and liaison have been established with the supporting unit, and he keeps them fully informed of the current situation and support needed. He requests support; however, this request is considered an order by the supported unit. In case of conflicting interests, the supporting unit commences the necessary action while concurrently referring the matter to its own parent unit.

(2) Operational Command.--When a unit is placed under the operational command of a regiment, the command relationship is similar to that outlined for an attached unit. The regimental commander will assign missions and direct operations of units under his operational command.

1202. REGIMENTAL EXECUTIVE STAFF

a. General.--The regimental staff consists of officers who assist the commander in the exercise of his duties. The regimental commander and his staff are a single entity. The regimental executive staff consists of the regimental executive officer, the S-1, S-2, S-3, S-4, and S-5 (when authorized), as the personnel, intelligence, operations and training, logistics, and civil affairs officers, respectively.

(1) The principal functions of the regimental executive staff are to:

(a) Study and evaluate obtained information in relation to the situation, and provide the regimental commander such advice, recommendations, or estimates as he may require.

(b) Prepare such plans, orders, and reports as may be required in order to implement the commander's policies and decisions and comply with directives from higher headquarters.

(c) Inspect, exercise appropriate staff supervision, and recommend necessary action to correct deficiencies noted within the regiment.

(d) Plan continuously for future operations (concurrently with accomplishment of all other functions).

(2) The staff is supervised and directed in its routine functions by the regimental executive officer. Normally, the regimental commander issues orders and instructions to his staff via the executive officer, although he may choose to do so personally on appropriate occasions. There must be complete cooperation and coordination between the individual staff officers in accomplishing common tasks. Each staff officer is responsible for appropriate coordination on matters which are of mutual concern to other members of the staff. If differences arise which cannot be mutually resolved, the matter is presented to the regimental executive officer who will provide further guidance, decide the matter in accordance with the policies of the regimental commander, or seek a decision from the commander. Staff officers extend the process of cooperation and coordination beyond the regimental headquarters to include higher, adjacent,

supporting, supported, and subordinate units. In their relations with corresponding staff officers of other units, members of the regimental staff respect the command authority and prerogatives of the commanders concerned, recognizing that theirs is wholly a staff function which in no sense supplants the normal chain of command. The policies of the regimental commander will govern the extent and nature of staff functions in this regard.

(3) Staff officers make frequent visits to subordinate elements of the regiment in order to gain firsthand information of their needs, problems, and status, and to determine what assistance can be given them by regimental headquarters. Such visits promote friendly relations, mutual confidence, and thorough understanding. As the first and last act of each visit, regimental staff officers should personally contact the visited unit commander. When conditions are observed which are known to be at variance with the regimental commander's policies or orders, the matter is tactfully brought to the visited commander's attention. Any actions which might tend to harass subordinate units are scrupulously avoided. Staff officers must realize that they are responsible for assisting unit commanders as well as the regimental commander. Upon return from a staff visit, a simple, factual report is submitted to the regimental commander.

b. Regimental Executive Officer.--The regimental executive officer is the regimental commander's principal staff assistant and advisor. He must be prepared to assume the regimental commander's duties at any time the need arises. He may transmit the regimental commander's decisions to the staff sections and to subordinate units when applicable. He does this in the name of the commander. There is no specific location for the executive officer during combat. His location depends on the desires and needs of the regimental commander. The executive officer generally remains at the regimental command post so that he can keep abreast of the situation and coordinate the staff's actions. The regimental commander and executive officer normally do not absent themselves from the command post at the same time. When the regimental command post displaces, the executive officer usually moves with the last echelon.

c. S-1/Adjutant.--The S-1/adjutant is charged with staff responsibility for personnel and other administrative matters within the regiment. He is not involved, however, in personnel accounting procedures. By monitoring the administrative chain from battalion to division, he keeps the regimental commander abreast of the personnel situation within the regiment, recommends personnel policies where appropriate, and assists the regimental commander in handling such personnel and morale factors as influence the combat effectiveness of the regiment including supervision of legal affairs and disciplinary matters for the commander.

d. S-2, Intelligence.--The S-2 officer acts as the regimental commander's intelligence assistant for the planning and supervision of all intelligence and counterintelligence activities of the command. His primary staff responsibility is to produce intelligence of the enemy and the area of operations not under friendly control. Included within this responsibility is the planning, supervision, and collection of information needed by the command; rapid processing of this information into intelligence; and immediate dissemination of the resulting intelligence to higher, subordinate and adjacent units. The S-2 also assists the regimental commander in the planning of appropriate counterintelligence measures and maintains staff supervision over their execution as approved by the commander.

e. S-3, Operations and Training.--The regimental S-3 officer has staff responsibility for matters pertaining to the organization, training, and tactical operations of the regiment. He also has staff responsibility for civil affairs when an S-5 section is not established. Included within the S-3 section are an assistant S-3/nuclear and chemical weapons employment officer, an assistant S-3/nuclear, biological, and chemical (NBC) defense officer, and an air liaison officer (ALO).

f. S-4, Logistics.--The logistics officer has staff responsibility for the determination of overall requirements and statement to higher echelon of regimental requirements for supply, transportation, service, medical support, and financial management. He makes recommendations for the allocation of means, prepares computation of detailed requirements for presentation to higher authority, and assists in the preparation of plans and orders. In addition, he has staff responsibility for procedures which ensure that the regimental commander is informed when the provision of this support is not responsive to the needs of the regiment. He is assisted in the accomplishment of logistic functions by two officer assistants, the supply and embarkation officers.

g. S-5, Civil Affairs.--When authorized, the civil affairs officer has the staff responsibility for planning, coordinating, and supervising all civil affairs activities. He assists the regimental commander in all matters involving the civil population present in the area of operations, and seeks to reduce civilian interference with military operations. He effects liaison with local civilian leaders, and with all other organizations present, to include U.S., indigenous, and third country, which are directly concerned with the civil populace. He provides staff supervision over all civil affairs units attached, and provides intelligence to the S-2 derived from civilian contacts.

1203. SPECIAL STAFF

a. Communication Officer.--The regimental communication officer serves as a special staff officer to the regimental commander. In this capacity, he is under the staff supervision of the executive officer with respect to communications and electronics. He keeps himself informed of current and future operations and plans of the regiment. He advises the regimental commander and staff on communication matters, including the establishment of communications within the regiment, with division headquarters, and with supporting and attached units. Guided by the policies of the regimental commander, he coordinates and supervises the tactical aspects of the entire regimental communication system. Working in close harmony with the division communication-electronics officer and the communication officers of the other regiments and separate battalions, he ensures that his regimental communication operations are in consonance with the basic division communication plan. He is also regimental headquarters company communication platoon commander.

b. Headquarters Commandant.--The headquarters commandant (company commander of the regimental headquarters company) performs his duties with the assistance of headquarters company personnel. (See fig. 2.)

c. Air Liaison Officer.--The regimental ALO serves as a special staff officer to the regimental commander on aviation matters. He is a naval aviator and is under the staff cognizance of the S-3. As officer in charge of the regimental tactical air control party (TACP), he establishes liaison with the division TACP and acts as the point of contact for battalion TACP's. During the planning process, he provides input on aviation capabilities and availability as they affect courses of action and schemes of maneuver. He has the staff responsibility for regimental level air support and assault support coordination in the regimental FSCC.

d. Nuclear and Chemical Weapons Employment Officer.--The regimental nuclear and chemical weapons employment officer advises the regimental commander and his staff on matters pertaining to nuclear and chemical weapons employment. He prepares plans, annexes, and regimental standing operating procedures for nuclear and chemical weapons employment. He supervises and coordinates operational and technical activities essential to the employment of these weapons by maintaining liaison with division counterparts and coordinating with subordinate units. He normally is an assistant S-3 and also performs his special staff duties under the supervision of the regimental S-3.

e. Nuclear, Biological, and Chemical Defense Officer.--The regimental NBC defense officer advises the regimental commander and his staff on matters pertaining to NBC defense. He prepares plans, annexes, and regimental standing operating procedures for NBC defense. He supervises and coordinates operaional and technical activities associated with NBC defense. He normally is an assistant S-3 and also performs his special staff duties under the supervision of the regimental S-3.

f. Motor Transport Officer.--The regimental motor transport officer, in addition to commanding the motor transport section of regimental headquarters company, also functions as a special staff officer to the regimental commander in matters concerning automotive maintenance and control of transportation. He normally operates under the staff supervision of the S-4.

g. Fire Support Coordinator.--Although there is no specific T/O billet as such, a fire support coordinator is designated by the regimental commander (normally the artillery liaison officer). In addition to other duties he may have, the fire support coordinator, under the staff supervision of the S-3, supervises the operation of the fire support coordination center. (See FMFM 7-1, Fire Support Coordination.)

h. Regimental Surgeon.--As a special staff officer, the regimental surgeon advises the regimental commander regarding the functioning of all medical service in the regiment. He represents the regimental commander in all matters concerning medical service. It should be noted, however, that when a collecting and clearing company is attached, the company commander is usually senior to the regimental surgeon in rank, in military experience, and in medicine. His advice and assistance should be regularly solicited.

i. Embarkation Officer.--(See par. 2703c.)

j. Supply Officer.--Since the regiment does not provide supply support to subordinate elements, the regimental supply officer functions primarily in an advisory capacity. He keeps himself informed of the supply status throughout the regiment, its problems, and the steps being undertaken to solve the problems. He will be aware of future operational plans and advise the commander on any problems they pose. He will be particularly concerned with the effects of supply on the maintenance effort of the subordinate units. He will also function as the assistant S-4.

k. Commanders of Attached or Supporting Units

(1) Commanders of attached or supporting units are advisers to the regimental commander and his staff on matters pertaining to the employment of their units based on their combat or support capabilities, the regiment's mission, and the current situation. They also arrange for the coordination of their activities with the proper regimental agencies and those of higher or adjacent units.

(2) Depending on the regimental mission, these units may include any or all of the following:

(a) Units or detachment from the artillery battalion, reconnaissance battalion, tank battalion, assault amphibious battalion, and force service support group.

(b) Elements of force units.

(c) Aviation elements.

(3) When an artillery battalion is attached to or in direct support of the infantry regiment, the artillery and naval gunfire liaison officers are located at the infantry regiment command post. These officers assist the regimental commander in planning and coordinating the fires of available supporting arms. The artillery and naval gunfire liaison officers:

(a) Advise the regimental commander on the employment of artillery and naval gunfire.

(b) Assist in the preparation of the fire support portion of the regimental SOP.

(c) Prepare the regimental portion of the artillery and naval gunfire fire plan.

(d) Assist the commander in the detailed coordination of all supporting fires.

Section III. COMMAND POST AND ITS CONTROL

1301. COMMAND POST OPERATION

a. General.--The purpose of the regimental command post is to furnish the regimental commander with the facilities which he requires in order to control the operations of the regiment. It neither possesses nor requires any sizable administrative and logistic installations. Sufficient personnel and equipment are organic to enable the regimental command group to be divided into two echelons for limited periods of time; e.g., during displacement, with each echelon possessing a minimum capability of controlling tactical operations of the regiment.

b. Displacement (Ashore or Afloat).--The factors influencing command post displacement are applicable whether already ashore or during an amphibious assault. Specifically, displacement is effected whenever required to ensure efficient control of operations of subordinate tactical elements. This movement is accomplished in a manner which avoids interruption of the regimental commander's ability to exercise control. For details concerning specific factors, see FMFM 3-1, Command and Staff Action.

1302. COMMUNICATIONS

a. General.--The regimental commander must have sufficient communications to provide the continuous capability to command assigned forces; to control and coordinate movement, supporting fires, and logistic support; and to collect and disseminate information. This requires that he have the means to maintain continuous communications with each of his subordinate and supporting units, with higher headquarters and with adjacent units. For detailed information on communications, see FMFM 10-1, Communications.

(1) Responsibility for Communications.--Responsibility for communications is a function of command. Rules governing responsibility for establishment of communications are:

(a) Establishment of communications between senior and subordinate units is the responsibility of the senior. This is usually accomplished through designation by the senior commander of the radio nets, wire lines, and multichannel radio terminals which the subordinate unit must enter/terminate. The senior unit assists when necessary.

(b) The responsibility for establishment of lateral communications between adjacent units rests with the first common senior, who may either establish communications or direct one or more of the units concerned to establish communications.

(c) A unit assigned a mission in support of another unit is responsible for establishment of communications to the supported unit.

(d) Responsibility for the establishment of communications with an attached unit rests with the commander of the unit to which the attachment has been made.

(2) Types of Communications.--Communication means are classified into two types: telecommunications and physical communications. While the term telecommunication is generally associated with rapid high-capacity electrical or electronic communication means such as wire or radio, it also includes visual and sound communications. Physical communications include mail and messenger service.

(3) Communication Organization.--The communication platoon of the headquarters company, infantry regiment provides communications for the infantry regiment. The communication platoon consists of a platoon headquarters, message center, radio, wire, radio relay, and tactical air control party sections. Communications for coordination of artillery and naval gunfire support are provided by the artillery battalion.

b. Telecommunication Systems

(1) Radio.--(A percent symbol (%) following a net title indicates additional circuits may be activated as required. In such cases, the nets are further identified by a suffix number.)

(a) External Radio Nets.--The infantry regiment normally establishes stations on the following radio nets to higher headquarters. See FMFM 10-1, Communications, for a description of the purpose and composition of these nets.

1 Command net (%).

2 Tactical net (%).

3 Reconnaissance net (as required) (%).

4 Alert/broadcast net.

5 Air observation net (as required) (%).

6 Damage control net (as required) (%).

7 Intelligence operations net (as required).

8 Medical evacuation common net (as required).

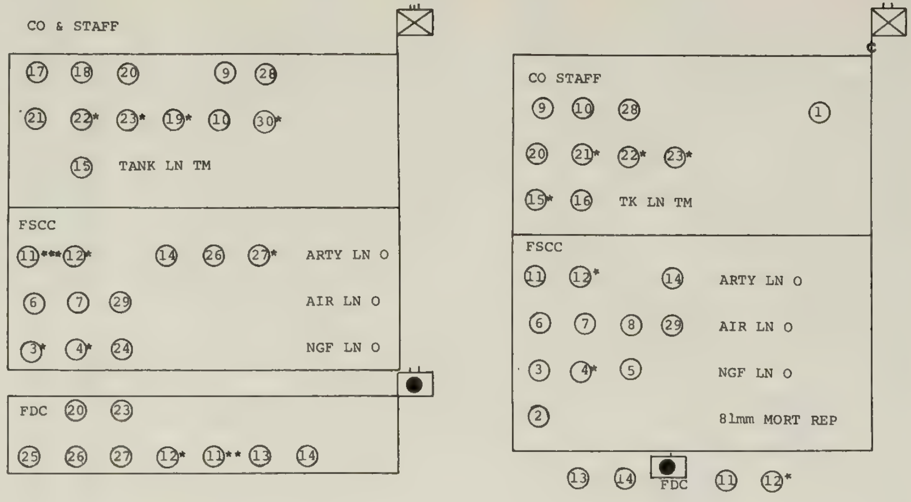
9 Naval gunfire support net (as required).

10 Medical regulating net (as required).

(b) Internal Radio Nets.--The following radio nets are normally established and controlled by the regimental headquarters:

1 Infantry Regiment Command Net (HF).--Provides a means to exercise command and control of combat and combat support units of the infantry regiment. Stations on the net include the regiment's main command post (CP) and the infantry battalions. Attached and supporting units enter the net as required.

2 Infantry Regiment Tactical Net (VHF) (%).--Provides a means to exercise tactical control of the subordinate units. Stations



LEGEND OF RADIO NETS:

- ① BN TAC (VHF)
- ② BN MORTAR (VHF)
- ③ NGF GND SPOT (HF)
- ④ NGF AIR SPOT (UHF)
- ⑤ SFCP LOCAL (VHF)
- ⑥ TACT AIR REQ (HF) %
- ⑦ TACT AIR DIR (UHF)
- ⑧ TACP LOCAL (VHF)
- ⑨ REGT CMD (HF)
- ⑩ REGT TACT (VHF)
- ⑪ ARTY COND/FIRE (VHF)
- ⑫ ARTY AIR SPOT (VHF)
- ⑬ D/S ARTY BN CMD (VHF)
- ⑭ D/S ARTY BN FD (VHF)
- ⑮ TANK CO CMD (VHF)
- ⑯ TANK PLAT CMD (VHF)
- ⑰ DIV COMD 1 (HF) %
- ⑱ DIV TACTICAL (VHF) %
- ⑲ DIV INT/OPNS (HF)
- ⑳ DIV ALERT BDCST (HF)
- ㉑ DIV RECON (HF) %
- ㉒ DIV AIR OBS (VHF) %
- ㉓ DIV DAM CONT (HF)
- ㉔ DIV NGF SUPPORT (HF)
- ㉕ ARTY REGT CMD (HF)
- ㉖ ARTY REGT FD (VHF)
- ㉗ ARTY REGT TACTICAL (VHF)
- ㉘ MEDEVAC COMMON (VHF) %
- ㉙ HELICOPTER REQUEST (HF)
- ㉚ MEDICAL REGULATING NET (HF) *

NOTE: The task organization providing log support to an infantry regiment will guard that regiment's command net.

* Guarded as required.
** Guards one conduct of fire net for each battery under control of this FDC.
*** Guard as required the artillery conduct of fire nets of the artillery batteries.
% Additional nets may be activated as required.

Figure 3.--An Example of the Radio Communications of a Marine Infantry Regiment.

on the net include the regimental CP, the regimental commander when he is absent from the CP, infantry battalions, and the regiment's tactical-logistical (TACLOG) group. Attached and supporting units enter as required.

(c) Supporting Arms Radio Nets.--The following radio nets are normally used in the regimental FSCC (see fig. 3):

1 Artillery.--The artillery liaison officer at the infantry regiment FSCC, with personnel and equipment provided by the artillery battalion, enters the following nets:

a Artillery conduct of fire nets (one per battery, as required).

b Artillery battalion fire direction net.

c Artillery air spot (VHF) net (as required).

d Artillery regimental fire direction net.

e Artillery regimental tactical net (as required).

2 Naval Gunfire (NGF) Support Radio Nets.--The artillery battalion has organic shore fire control parties (SFCP's) with communication equipment for assignment to two infantry battalions and a regimental NGF liaison team with communication equipment for assignment to the infantry regimental headquarters. The regimental NGF liaison team enters the following nets:

a Naval gunfire ground spot net.

b Naval gunfire air spot net.

c Shore fire control party local net.

3 Air Support Radio Nets.--The regimental air liaison officer, using personnel and equipment from the TACP section of the regimental communication platoon, enters the following nets:

a Tactical Air Request (TAR) Net (%).--This is an HF voice net which provides a means for the ground combat units to request immediate air support from the direct air support center. Stations on this net includes all TACP's and FSCC's within the division, air support radar teams (ASRT(s)), the DASC, and other air control agencies as required. Regimental and division FSCC's monitor this net and may modify, approve, or disapprove a specific request. The DASC uses this net to brief the requesting TACP on the details of the mission. Damage assessment may be reported over this net.

b Tactical Air Direction (TAD) Net (%).--This UHF voice radio net provides a means through which air control agencies control support aircraft in the conduct of tactical air operations. Stations on this net include strike aircraft, appropriate TACP's, FSCC's, ASRT's, and air control agencies. Damage assessment is reported to the pilot over this net.

c Helicopter Request Net (%).--This HF voice radio net provides a means for requesting immediate helicopter support. This net is employed in the same manner as the tactical air request net and has the same stations. If the scope of operations permits, this net may be omitted and helicopter requests submitted over the TAR net.

(2) Multichannel Radio

(a) Multichannel radio is normally the primary means for provision of telephone/teletype/data/facsimile service between units. The division communication company installs and operates both terminals of a multichannel circuit between the division main CP and each infantry regiment. Multichannel radio equipment and operating personnel are attached to the infantry battalion from the regimental communication platoon to provide multichannel circuits between the infantry regiment and its battalions. Services provided may include:

1 Common user telephone service.

2 Functional channels between staff sections.

3 Supporting arms channels.

4 Teletype channels.

5 Data channels.

6 Facsimile channels.

(3) Wire

(a) Wire is used extensively within the command post for local telephones, wire/multichannel radio terminals, radio-wire integrated circuits, teletype circuits, and radio remote connections. Wire trunklines are normally installed to other units in proximity to the CP.

(b) The wire section of the regimental communication platoon installs, operates, and maintains wire facilities at the CP.

(c) Radio-wire integration (RWI) is a technique used to provide a connection between voice radio circuits and a switched telephone system. It permits communications between a voice radio user and a telephone subscriber on a push-to-talk basis by interconnecting the circuits with RWI equipment. RWI is especially useful when a commander, absent from his CP, needs communications with a member of his staff. Other applications include communications between radio stations separated by a distance exceeding their operating range, communications between commanders embarked in aircraft and vehicles, and senior, adjacent, and subordinate elements.

(4) Teletypewriter.--Teletypewriter communications are established between the division and regimental headquarters and from the regimental headquarters and the three infantry battalions over multichannel radio circuits, or over wire trunklines when installed. The regimental headquarters may be tasked to provide communication guard for units collocated within the immediate vicinity of the CP. Teletypewriter equipment provides a method for high speed transmission and reception of textual information in narrative or tabular form.

(5) Visual.--Visual communications are easily misunderstood and their utility is limited during periods of poor visibility or when prohibited by security considerations. They are highly vulnerable to interception by the enemy; or the enemy may use similar signals to deceive or confuse friendly elements. Visual signals must be coordinated with nearby friendly units, and the meanings assigned to certain visual signals must be in accord with standardized meanings prescribed by higher authority.

(6) Sound

(a) Sound systems incorporate the use of loud speakers, public address sets, whistles, sirens, gongs, and similar devices for dissemination of alerts and warnings, ground and airborne psychological operations, and riot control. Their most common use is for dissemination of alert and warnings within command posts.

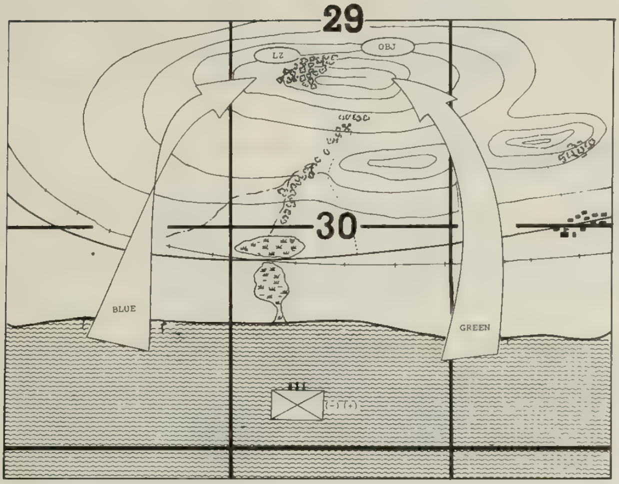
(b) Sound signals are satisfactory only for short distances and their effectiveness may be greatly reduced by battle noises. They must be kept brief and simple to prevent misunderstanding. Since they are vulnerable to enemy interception and deception, their use may be restricted for security reasons.

c. Physical Communication System

(1) Messenger service is conducted on a scheduled or nonscheduled basis as the situation dictates. In some situations, messenger service will be the primary means of communication with certain units and should be used extensively, especially for high volume traffic of a nonurgent nature.

(2) Mail service is a type of physical communication system and should be used for all traffic of sufficiently low precedence that the use of electrical or messenger transmission is not warranted.

d. Special Security Communications.--Communication channels for the exclusive use of elements of the radio battalion to higher headquarters, as required, must be provided. Additional information is contained in FMFM 2-3, Signal Intelligence/Electronic Warfare Operations (U).



CHAPTER 2

REGIMENT IN AMPHIBIOUS OPERATIONS

Section I. AMPHIBIOUS OPERATION

2101. GENERAL

a. The purpose of this chapter is to present the practical aspects of planning for and the employment of the infantry regiment in an amphibious operation. Included is the employment of helicopterborne forces. However, for detailed information, see FMFM 5-3, Assault Support. The principles of employment of combat support and combat service support elements in an amphibious operation are described only as necessary to describe their support in the accomplishment of the assigned mission. The specific employment of these elements can be found in appropriate manuals of the FMFM series. The conduct of subsequent operations ashore is presented in chapter 3.

b. The ship-to-shore movement of the landing force, based upon the scheme of maneuver, will vary. A nuclear war or the threat of a nuclear attack requires that provisions be made for different type landings to provide for increased unit separation. Ship-to-shore movements will range from those which require several coordinated landings over a period of time and which are separated in width and depth, to a scheme of maneuver requiring the concentration of assault troops in dense formation.

2102. EMPLOYMENT

a. General.--The infantry regiment may be employed in an amphibious operation as a regimental landing team (RLT) under a division, or as the ground component of a Marine amphibious brigade (MAB).

b. Regimental Landing Team.--JCS Pub 1, Department of Defense Dictionary of Military and Associated Terms, defines the RLT as: "A task organization for landing, comprised of an infantry regiment reinforced by those elements which are required for initiation of its combat function ashore." In the conduct of amphibious operations, the RLT may be employed as an integral part of the Marine division or as the landing force in independent operations.

c. Marine Amphibious Brigade

(1) An MAGTF is a task organization which is designed to accomplish the specific mission(s) assigned and to exploit the combat power inherent in carefully integrated air and ground operations. Its organizational structure includes four major components:

(a) A command element.

(b) A ground combat element.

(c) An aviation combat element.

(d) A combat service support element.

(2) This paragraph is devoted to the general discussion of the employment of the regiment as the only ground combat element of the MAB. The term MAB is used in its generic sense to denote the type of MAGTF concerned. It does not in itself denote a specific task organization unless combined with an appropriate numerical designation. It connotes merely the scope of the commitment for planning and programming purposes.

(3) The MAB is a task organization that may be formed from two-ninths to five-ninths of the division/wing team. It is normally commanded by a brigadier general and is capable of conducting air-ground amphibious assault operations in low- and mid-intensity conflict environments. During potential crisis situations, the MAB may be forward-deployed afloat for an extended period in order to provide immediate response. The MAB is normally organized to accomplish a limited mission. Upon completion of the mission, the MAB is usually absorbed by the Marine amphibious force (MAF).

(a) The ground combat element of an MAB is tailored to accomplish the mission assigned; however, the ground combat element of the MAB will normally be a reinforced regiment. In some instances, more than one ground combat element may be assigned to the MAB. However, the ground combat capability of the MAB does not normally exceed that of a reinforced regiment. (See fig. 4.) A situation in which a larger force is required would result in employment of a Marine division.

(b) The normal aviation combat element of the MAB is a Marine aircraft group (MAG). It has varied aviation capabilities including those antiair warfare capabilities required by the situation. The entire aviation combat element of the MAB is usually organized and equipped for early establishment ashore.

(c) The combat service support element of the MAB includes significant resources from the Marine wing support group (MWSG), and the force service support group (FSSG).

(4) Primarily, the MAB will be employed as the landing force in an amphibious operation. However, this primary function does not preclude

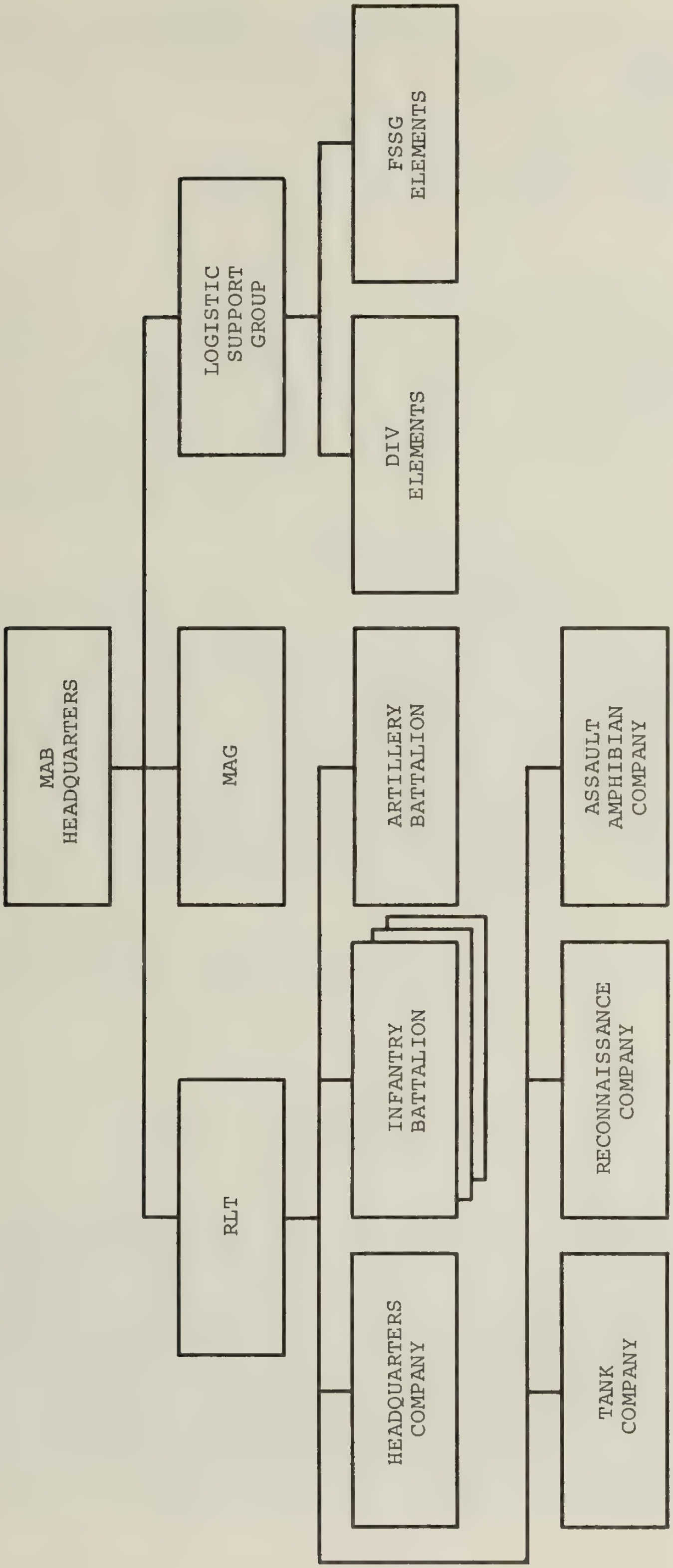


Figure 4.--Example, Notional Marine Amphibious Brigade (MAB).

the activation of the MAB to plan and conduct land combat operations. In either case, the planning techniques are essentially the same for employment in an amphibious operation or in land combat. (See sec. II, ch. 2.) However, the regiment may give increased emphasis to certain planning considerations when it assumes the assignment as the only ground combat element of the MAB. Discussion herein is oriented to those unique planning considerations which primarily affect the regiment when task organized as the only ground combat element of the MAB. These considerations include:

(a) Preliminary Planning Decisions.--When the regiment is operating as an integral part of a reinforced Marine division in amphibious operations, the regimental commander is concerned with but not directly involved in preliminary planning to arrive at basic and interrelated decisions. However, when functioning as the ground combat element of the MAB, the regimental commander makes definite contributions and recommendations in the determination of basic and interrelated decisions. These decisions are fundamental to an understanding of the requirements of landing force planning. In the MAB size operation, certain basic decisions are determined by higher authority. Basic decisions affecting amphibious planning are included in FMFM 2-1, Intelligence; FMFM 3-1, Command and Staff Action; and NWP 22, Doctrine for Amphibious Operations.

(b) Communications.--When the regiment is the only ground combat element, the determination of communication requirements and the planning and preparation of communication plans follow the established techniques and planning sequences for operational planning. The regimental commander is provided adequate augmentation of communication means from external sources to assist in the accomplishment of the mission. The primary objective of communication planning is achieved by employing an integrated communication system. An integrated system is one in which each communication means is incorporated in an overall system so that it is flexible enough to provide the necessary communications in all situations. Some of the planning considerations which receive increased emphasis when the regiment is the only ground combat element of the MAB are:

1 The fact that the MAB headquarters is not permanent. The regiment may be required to provide certain communication services during the initial stages of planning until such time as adequate communication facilities are established for the MAB headquarters from external sources.

2 The attachment of certain combat support and combat service support elements. A more complex communication system is necessary to provide communications for these elements.

(c) Logistic Support.--Logistic planning to support the regimental plan of attack follows the normal planning sequence. Logistic planning involves two primary phases. The first phase is the preparation of the logistic estimate. The second phase is the determination of how to support the course of action chosen by the regimental commander. The aviation combat element and the regiment have a pronounced influence upon the final composition and size of the combat service support element. Once the ground and the aviation combat element have determined their logistic requirements and they are approved by MAB headquarters, the combat service support element may be tailored to provide the necessary combat service support to each element and to the MAB headquarters. The regiment also assumes a greater overall logistic responsibility due to the number and size of attachments.

(d) Fire Support Planning.--When the regiment is the only ground combat element of the MAB, those aspects of fire support planning discussed in this manual are applicable. However, since the regimental fire support plan is essentially the fire support plan of the MAB, those aspects of fire support planning discussed in FMFM 6-1, Marine Division, are also applicable.

(e) Other.--Planning considerations in other planning areas such as embarkation, rehearsal, and movement phases, and the ship-to-shore movement are essentially the same.

2103. BASIC CONCEPTS

a. General.--An amphibious operation in its principal form is an attack launched from the sea by naval and landing forces embarked in ships or craft involving a landing on a hostile shore. It is conducted for the purpose of prosecuting further combat operations, obtaining a site for an advanced naval or air base, or to deny the use of an area or facilities to the enemy. Other types of amphibious operations are amphibious withdrawals, demonstrations, and raids.

b. Characteristics of an Amphibious Operation.--The amphibious operation integrates virtually all types of sea, air, and land forces in a concerted military effort. This balanced force is both mobile and flexible, giving it the capability to strike with great force at a selected site or sites within the enemy defensive system. It is most desirable that the amphibious task force have naval supremacy against enemy surface and submarine forces, preponderant air superiority, and a substantial superiority over enemy ground forces defending the objective area. The salient limiting characteristic of the attacking forces is the necessity for building up combat power ashore from initial zero to full coordinated striking power. The amphibious attack must be conducted in the face of certain natural forces including seas and features of hydrography, none of which are encountered in land warfare; however, the helicopter has added substantial mobility and flexibility to overcome these obstacles. The massing of troops and materiel, their movement to the amphibious objective area (AOA), and the landing, usually under enemy fire, impose unique tactical and logistic problems.

c. Phases of an Amphibious Operation.--The phases of an amphibious operation are a sequence of events or activities. Certain phases may overlap in point of time, but usually occur in the following sequence:

(1) Planning Phase.--The period extending from the issuance of the initiating directive to embarkation. During this phase, the necessary preparatory measures, including concurrent planning, are effected. Although planning does not cease with the termination of this phase, it is useful to distinguish between the planning phase and the subsequent operational phases, since a marked change occurs in the relationship between the commanders of the various service components at the time the planning phase is terminated and the operational phases begin. During the planning phase, the commander amphibious task force (CATF) coordinates planning. Any differences which commanders of the components of the amphibious task force cannot resolve are referred to their common superior. At the commencement of the operational phases, the CATF assumes full responsibility for the entire force and for the operation.

(2) Embarkation Phase.--The period during which the forces, with their equipment and supplies, embark in assigned shipping. This phase commences the operational phases of the amphibious assault.

(3) Rehearsal Phase.--The period during which the prospective operation is rehearsed for the purpose of testing the adequacy of plans, the timing of detailed operations, and the combat readiness of participating forces; ensuring that all echelons are familiar with plans; and testing communications.

(4) Movement Phase.--The period during which the components of the amphibious task force move from the points of embarkation to the objective area. This move may be via rehearsal, staging, and/or rendezvous areas. The movement phase is completed when the components of the amphibious task force arrive in their assigned positions in the objective area.

(5) Assault Phase.--The period between the arrival of the major assault forces of the amphibious task force in the objective area and the accomplishment of the amphibious task force mission. Development of the area for its ultimate use may be initiated during this period.

d. Termination of Amphibious Operations

(1) The termination of the amphibious operation is predicated on the accomplishment of the mission of the amphibious task force in accordance with the specific conditions contained in the governing instructions set forth in the initiating directive. The firm establishment of the landing force ashore is usually specified as one of these conditions.

(2) The landing force is regarded as firmly established ashore when in the opinion of the commander landing force (CLF):

(a) The force beachhead has been secured.

(b) Sufficient tactical and supporting forces have been established ashore to ensure the continuous landing of troops and material requisite for subsequent operations.

(c) Command, communications, and supporting arms coordination facilities have been established ashore.

(d) The CLF has stated that he is ready to assume full responsibility for subsequent operations.

(3) When the CATF and the CLF are satisfied that the conditions specified in the initiating directive for terminating the amphibious assault have been met, the CATF will report these facts to higher authority designated in the initiating directive. This authority will then terminate the amphibious operation, dissolve the amphibious task force, and provide additional instructions as required, to include command arrangements and disposition of forces to be thereupon effective.

2104. FUNDAMENTALS OF AMPHIBIOUS PLANNING

a. General.--Amphibious planning must be concurrent, parallel, and detailed. These features distinguish amphibious operations from land operations. The differences which arise are due to the complex nature of the amphibious operation and the necessity for integrated participation of forces of two or more services.

b. Concurrent Planning.--Concurrent planning is conducted simultaneously at all echelons of the same command and by corresponding echelons of different commands. The necessity for this type of planning arises from the dependence of the landing force upon means primarily supplied by naval services. The RLT commander ensures that tentative decisions and plans and other information are made available to his staff and subordinate commanders as soon as practical. The RLT commander, with the assistance of his staff and battalion landing team (BLT) commanders, determines what reinforcements are required to accomplish the RLT mission. These requirements along with those of the BLT's must be coordinated, consolidated, and forwarded to the next higher echelon of command. It is through this planning process that the CATF evaluates and determines the landing force's overall needs. The nonavailability of certain requirements such as shipping space, assault amphibious vehicles, or material may cause modifications of the requirements or changes to the concept of operations.

c. Parallel Planning.--The concurrent participation by naval and landing force echelons requires a close and continuous relationship in planning between corresponding echelons and is termed parallel planning. As in concurrent planning, the necessity for parallel planning arises from the dependence of the landing force on naval means. Parallel planning does not commence until certain basic decisions have been announced by higher echelons. Normally, the division commander, in coordination with his Navy counterpart, authorizes direct liaison between the RLT commander and the transport unit commander. The RLT commander, in conjunction with the transport unit commander, decides when BLT commanders and transport commanders may begin parallel planning. To expedite parallel planning, each BLT commander and corresponding transport commander should be authorized to effect direct liaison. It is most desirable that the initial planning conferences at this level be held aboard or in proximity to the ships assigned. This affords an opportunity for the members of both staffs to consider particular factors of space available and required in planning. It is of primary importance that the embarkation officers of the RLT and the combat cargo officers of the assigned shipping maintain positive liaison which must be continued throughout the planning and embarkation phases.

d. Detailed Planning.--The complexity of an amphibious operation requires that a great degree of detailed coordination be effected at the highest command levels. In many instances, decisions which are normally made by the RLT commander during planning for a land warfare action are, in this type of operation, made by higher commanders. This results in limiting the normal freedom of action and decisions of the commander, particularly with respect to embarkation, landing formations, and the employment of supporting arms. Concurrent planning serves to minimize this restrictive influence, but the necessity for economy of force may require imposition of certain limitations within which the decisions of the RLT commander must be confined.

Section II. PLANNING

2201. GENERAL

a. Planning for an amphibious operation is a continuous process from the issuance of the initiating directive to termination of the operation. Planning for an amphibious operation differs from planning for land warfare in the manner in which it is conducted and the degree of detail involved. The assault of a defended beach is a special form of attack conducted to overcome a well-developed and coordinated defensive system manned in force by an enemy who may have had months or even years to plan and develop his defenses. To ensure success, the attacker fully exploits the means available such as helicopter support, supporting weapons (air, naval gunfire, conventional, and nuclear weapons), and combat service support. The final result of planning is the preparation of the operation plan/order. Detailed instructions of the completed plan are issued in appropriate annexes to the operation plan/order. Annexes amplify tasks and instructions set forth in the basic plan/order. The RLT commander prescribes the annexes which are included.

b. An RLT commander is assigned a mission and given the necessary troops, equipment, and other support to accomplish his assigned mission. Normally, he is not told how or in what manner his assigned mission is to be accomplished. However, during planning for an amphibious operation, the division and landing force commanders make some decisions, such as formations for the attack, which usually are made by the regimental commander in land warfare operations. This occurs because:

(1) The landing force is dependent upon supporting units for the accomplishment of the waterborne and helicopterborne phases of the assault, logistic support, and during the initial stages of the assault, for naval fire support.

(2) The information relating to the enemy and the objective area is obtained from higher headquarters.

2202. PLANNING PERIOD

A period of intensive, concentrated planning is necessary for each amphibious operation. The force in readiness concept requires the institution of many general preplanned measures and procedures designed to shorten the preparations necessary for a specific amphibious operation. During routine training periods, sample operation plans for the execution of all types of amphibious operations are developed. Although the situation may severely limit the time available for planning, a period of not less than 30 days is desirable for such planning. The following factors influence the length of the planning period:

a. Time and space factors relating to the collection of enemy information and dissemination of intelligence.

b. Requirements for special training of naval and landing force units.

c. Obstacles to planning imposed by distance between component elements of the naval and landing force units. It is essential that these restrictions be minimized by establishment of the best possible communication service.

d. The requirements for concurrent, parallel, and detailed planning as discussed in section I of this chapter.

2203. SECURITY DURING PLANNING

Security is a command responsibility. The dispersion of forces involved in amphibious operations increases the difficulty of achieving positive security. It is vital that a plan for security of planning information be completed and placed in effect when operational planning is commenced. Security regulations must be rigidly enforced. They should include as many of the following measures as possible:

a. Provision of well-guarded planning rooms.

b. Information required for planning is not withheld from any headquarters. However, care is exercised to avoid unnecessary dissemination of information.

c. The designated code title for the operation is used at all times. Reference by name to locales at the objective is avoided.

d. Communication security is rigidly enforced. A noticeable increase in radio traffic is avoided.

e. Special equipment required for the operation is exposed to the minimum number of personnel consistent with requirements for planning and training.

f. Provision is made for strict censorship.

g. Regulations are issued which restrict the movement of personnel who have detailed knowledge of plans of the operation when such movement may result in their capture and subsequent interrogation by the enemy.

2204. PLANNING SEQUENCE

a. Basic Decisions.--Planning for an amphibious operation at the RLT level normally cannot commence until all or most of the basic decisions are announced by higher commanders. The basic decisions in amphibious planning are discussed fully in LFM 02, Doctrine for Landing Forces. They include the following:

(1) Determination of amphibious task force objectives.

(2) Determination of the landing force mission.

(3) Designation of landing sites.

(4) Selection of landing force objectives.

(5) Selection of the beachhead.

(6) Selection of landing areas.

(7) Development of the landing force concept of operations ashore.

(8) Selection of landing beaches.

(9) Selection of helicopter landing zones.

(10) Selection of fixed-wing aircraft landing fields and drop zones for air-transported and airborne operations.

(11) Determination of the date and hour of landing.

b. Warning Orders.--When the commander's estimate at the landing force level has been completed, a warning order is promulgated to subordinate commands. MAB/divisions and RLT's immediately issue warning orders to subordinate commands to ensure concurrent, parallel, and detailed planning. Following the warning order, the MAB/division promulgates planning guidance so that interdependent plans will be coordinated, planing completed in the time allowed, and important aspects not overlooked. Figure 5 illustrates the planning sequence for the RLT.

c. MAB/Division Outline Plan.--The RLT initiates detailed planning for an amphibious operation after receipt of the division outline plan which is a skeleton of the plan under consideration. Generally, it states the mission, broad concept of operation, basic undertakings, and the scope of initial and subsequent operations. The MAB/division disseminates the outline plan either as a formal order or orally; if oral, it is confirmed

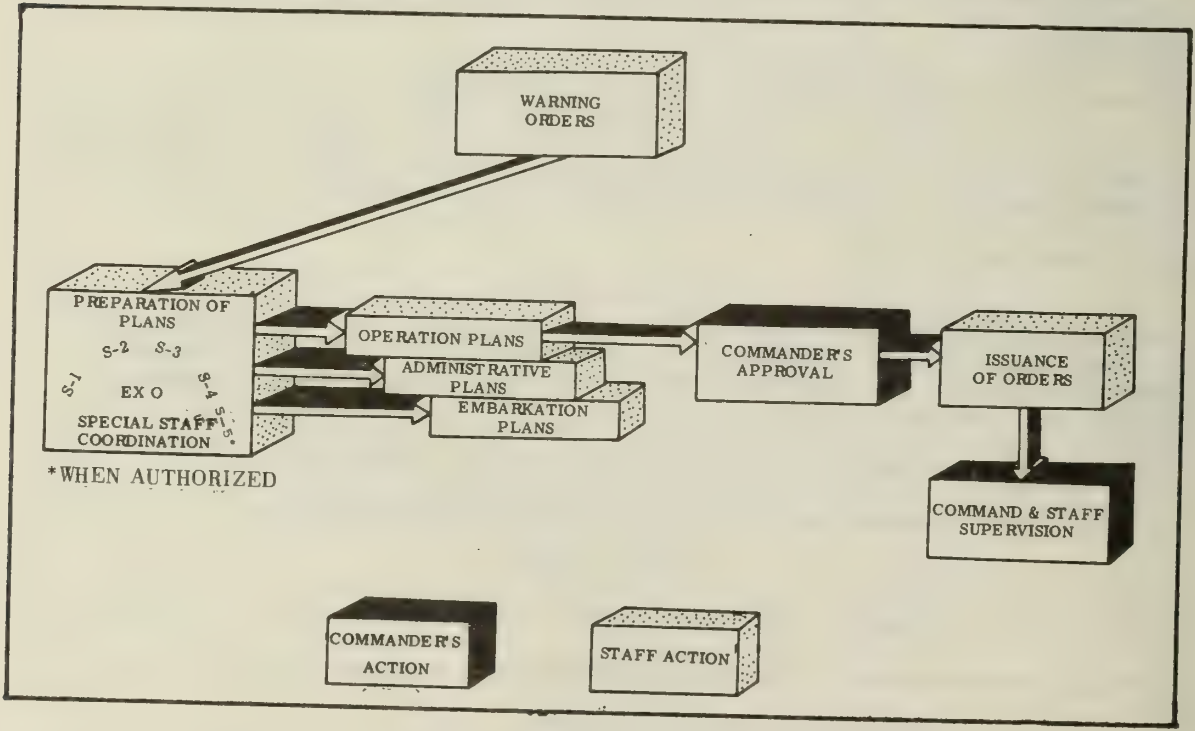


Figure 5.--Sequence of Command and Staff Action.

later in writing. The division normally issues the outline plan at a conference attended by commanders and designated staff officers of all units who are to initiate planning at this time. The plan includes as much of the following information, even though tentative in nature, as may be available:

(1) MAB/division commander's primary concept of operations ashore.

(2) Mission and objectives.

(3) Beaches and helicopter landing zones.

(4) Date and hour of landing, expressed in terms of D-day and H-hour.

(5) Available intelligence of the objective area as required by the RLT and subordinate units to commence planning.

(6) Task organization, effective upon receipt for planning purposes only. The task organization is supplemented by a troop list showing strength in officer and enlisted, Navy and Marine Corps, and items of equipment which require special handling.

(7) Shipping allocation.

(8) Designation of corresponding landing force and naval commanders.

(9) Administrative information pertaining to equipment and supplies to be embarked.

(10) Availability of landing craft, assault amphibious vehicles, and helicopters.

(11) Availability of naval gunfire, artillery, and air support.

d. Planning Guidance.--Based on the division outline plan and additional information available from the staff and other sources, the RLT commander indicates which courses of action will be developed. Planning guidance is a brief oral or written outline presented to the staff, indicating the scope of the operation as a guide for preparing staff estimates. To assist the staff and subordinate commands, a planning program and planning schedule are prepared for the staff and a planning directive is issued to subordinate commands.

(1) Planning Program.--A planning program is prepared to establish planning tasks to be performed, the staff sections responsible for their accomplishment, and the sequence in which the tasks are to be performed. It is the end product of an analysis of the work to be accomplished in planning the amphibious operation. The program is normally in the form of a checklist of the tasks arranged in a logical sequence.

(2) Planning Schedule.--To ensure the most efficient use of available planning time, coordinate the planning efforts of the staff and subordinate units, and lessen the possibility of overlooking information which is vital to the plans for the operation, the commander issues a

planning schedule. This schedule is a graphic representation of specific periods of time allocated to the performance of planning tasks assigned in the planning program. The time allocated must be sufficient to complete each task and ensure timely dissemination of essential information to interested staff sections and subordinate and higher echelons.

(3) Planning Directive.--The RLT commander issues a planning directive to the BLT's to:

(a) Outline major planning phases.

(b) Establish deadlines for completion of planning.

(c) Establish deadlines for submission of requirements, forms, and other items required by the RLT in the completion of its plans.

e. Staff Estimates

(1) On the basis of the planning guidance given by the RLT commander, executive and special staff officers prepare appropriate staff estimates considering each particular staff specialty. These staff estimates serve three general purposes:

(a) To determine the feasibility of proposed courses of action.

(b) To analyze the impact of all factors upon each course of action and bring significant conclusions within each staff section's purview to the attention of the commander.

(c) To propose a modified or new course of action.

(2) The staff estimates form the basis for the commander's estimate of the situation and are the means for determining the need for and probable employment of combat, combat support, and combat service support units. For further information on employment of supporting units, see paragraph 2206.

f. Commander's Estimate.--The RLT commander analyzes and evaluates all information in terms of his own knowledge and experience and makes his estimate of the situation. This responsibility cannot be delegated. His estimate ensures that consideration is given to all factors and results in adoption of the most favorable course of action. A recommended form for the commander's estimate is included in FMFM 3-1, Command and Staff Action.

g. Commander's Decision

(1) In making his decision, the RLT commander decides on the most favorable course of action to accomplish his mission. At this point, he commits the command to a definite course of action. The decision is a concise statement of what the commander intends to do to accomplish his mission. It is the end product of his estimate of the situation.

(2) The RLT commander's decision is a brief statement which clearly sets forth the course of action to be adopted. He determines only the how, and even this may be affected by decisions of the division

commander. The RLT commander makes whatever recommendations he deems appropriate for the modification of the division commander's decisions as they affect the employment of the RLT. The staff and commander's estimates provide the reasons for making the recommendations.

(3) The RLT commander submits his decision to the division commander for approval. This is necessary because:

(a) The complex nature of an amphibious operation requires detailed coordination by higher headquarters.

(b) The RLT commander's scheme of maneuver must be consistent with the MAB/division tentative plan of attack.

(c) The dependence of the landing force upon naval means for the execution of an amphibious operation demands that the requirements of the decision be within the capabilities of the naval means. The MAB/ division commander approves or, in conjunction with the RLT commander, modifies the decision as may be necessary in light of these factors.

h. Commander's Concept.--The commander amplifies his decision by furnishing his staff such pertinent information as he desires to ensure complete understanding of how he visualizes the operation, and they include the concept in plans and orders primarily to clarify and amplify missions and tasks.

i. Detailed Estimates

(1) Based on the commander's decision and concept and any additional information available, each staff officer examines the effect of the selected course of action upon his staff functions by means of a detailed estimate. The detailed estimates provide a basis for recommendations to the RLT commander, and provide him with information to make the decisions necessary to prepare the RLT order. The RLT commander also uses this information in submitting recommendations and requirements to higher echelons.

(2) As new or revised information, considerations, recommendations, and requirements enter the planning process, estimates are revised in order to arrive at the most suitable recommendation or decision.

j. Formulation of RLT Scheme of Maneuver and Plan of Supporting Fires.--Using the commander's decision and concept as a guide plus all other information available, the staff formulates the RLT scheme of maneuver and plan of supporting fires. These are discussed in detail in paragraph 2207.

k. RLT Outline Plan.--As soon as formulation of the RLT scheme of maneuver and plan of supporting fires are sufficiently advanced, an outline plan is issued to subordinate units. This may be done prior to the division commander's approval of the RLT commander's decision providing available information indicates that there will be no major change in the concept. The RLT outline plan is similar to the division outline plan discussed in subparagraph 2204c above. The plan includes as much of the following information, even though tentative in nature, as may be available:

(1) RLT commander's concept of the proposed operation.

(2) Probable employment of subordinate units.

(3) Missions and objectives of subordinate units.

(4) Date and hour of landing expressed in terms of D-day and H-hour.

(5) Beaches and landing zones.

(6) Information regarding the objective area which is required by subordinate units to initiate planning.

(7) Location of transport area, rendezvous area (if used), line of departure, boat lanes, helicopter transfer area, helicopter lanes, etc.

(8) Landing priority for elements of the regimental headquarters.

(9) Availability of naval gunfire, artillery, and air support.

(10) Composition of BLT's.

(11) Alternate plans.

(12) Formation for landing.

(13) Logistic and administrative information, such as floating dump allowances, possible equipment changes or restrictions upon vehicle loads, and medical requirements (special equipment, immunization, etc.).

(14) Availability of communication-electronics equipment aboard assault amphibious ships that will embark the RLT.

l. Subordinate Units

(1) The RLT passes all pertinent information to its subordinate units as it becomes available in order to expedite the planning process. Subordinate units of the RLT initiate planning upon receipt of the first information of the proposed operation. Information required by subordinate units to initiate or continue planning should not be withheld for security reasons. Early promulgation of the RLT outline plan and announcement of essential information to subordinate units result in the following advantages:

(a) Permits maximum time for planning.

(b) Permits timely submission of subordinate unit requirements.

(c) Permits the RLT commander to base later (supplementary) decisions upon the recommendations of subordinate units.

(d) Permits timely planning and execution of an intensified program of amphibious training for the troops based on the type of operation and expected method of employment.

(2) Formulation of the BLT Scheme of Maneuver and Plan of Supporting Fires.--The BLT commander follows the planning sequence described for the RLT in arriving at his decision and concept. With his decision approved and concept announced, the BLT formulates its plan of attack.

(3) Requirements and Recommendations.--Throughout the planning process, the BLT forwards to the RLT recommendations and requirements for the means to accomplish its mission.

m. Development of the RLT Plan of Attack.--Utilizing detailed staff estimates, the RLT outline plan is developed into the tentative scheme of maneuver, plan of supporting fires, and landing plan. During this phase, the close liaison with subordinate and supporting units required by concurrent planning results in the careful consideration of the recommendations and requirements of these units. Throughout the development of the scheme of maneuver and plan of supporting fires, many requirements of the landing plan become evident since it is based on the scheme of maneuver. The RLT consolidates and coordinates the landing plans of subordinate units and forwards recommendations for the RLT landing plan to the division. Details of the landing plan are discussed in subparagraph 2207e.

n. Development of Logistic Support.--The plan for logistic support is based on the plan of attack. The BLT's forward recommendations for logistic support to the RLT. The RLT integrates the recommendations from subordinate units into its plan for logistic support and forwards its recommendation to division. Details of logistic support are discussed in section VI of this chapter.

o. Allocation of Means

(1) During the time BLT's are developing their plan of attack, embarkation plans, and administrative plans, they determine their detailed requirements for air, naval gunfire, shipping, etc. The RLT receives requirements from subordinate units and allocates means to meet requirements from those organic to the RLT or tentatively assigned from division.

(2) The RLT, after careful review, forwards to division all additional requirements generated by the RLT and its subordinate units that cannot be filled from organic or tentatively assigned sources.

(3) Based upon the overall plans and the means available to it, the MAB/division allocates to the RLT the means to fulfill its requirements. The RLT revises its plans whenever required means are not available. The RLT reallocates means to subordinate units as required.

(4) This phase of planning is marked by close coordination by exchange of liaison officers, conferences, and staff visits. The close liaison provides for continuous reconciliation of means and requirements throughout the planning phase. Tentative decisions are made, requirements are determined, and the means allocated or requirements revised with a minimum loss of time. The cycle between means desired and means available and the effect on tentative decisions exert a significant influence on planning.

p. RLT Plans.--Upon the firm allocation of means, normally by promulgation of the higher headquarter's operation plans, the RLT completes its own operation plan.

2205. PLANNING AIDS

Essential planning aids are made available by the RLT or higher echelon. Planning aids consist of all or part of the items listed below:

a. Maps and charts to meet the needs of the planning staff and for use by troops in combat. All units and elements should use identical scale maps.

b. Aerial photography. Aerial photography is a most important planning aid. It may be the only source of information of the objective area. Ground photographs are valuable for immediate impressions of characteristics of beaches, terrain, and offshore obstacles and conditions. See FMFM 2-1, Intelligence, for a complete discussion of aerial photography.

c. Shoreline photographs taken by submarines and shoreline sketches. These are also a valuable aid.

d. Area studies, Amphibious Objective Study (AOS), Special Amphibious Study (SAS), Special Photographic Intelligence Report (SPIR), Airfield and Seaplane Stations of the World (ASSOTW), National Intelligence Survey (NIS), Port Intelligence Studies, and other similar hard copy intelligence material.

e. Scale models and relief maps for briefing and debriefing of troops. Models and relief maps should be three-dimensional, grided, and to a scale no smaller than 1:25,000 with a vertical scale exaggeration between 2:1 and 5:1.

f. Reports from evaluated prisoner-of-war interrogations, resident experts on the area, underground sources, and other clandestine sources.

g. Order of battle reports, studies, and summaries.

h. Pre D-day employment of remote sensors can provide the latest data on movement and patterns of activity in selected areas. For a complete discussion on remote sensors, see FMFM 2-1, Intelligence.

2206. EMPLOYMENT OF SUPPORTING UNITS

Recommendations as to the feasibility of placing supporting units in direct support or attaching them to the RLT are developed during the planning phase. Some of the factors which influence the employment of supporting units are as follows:

a. Engineers.--The engineer unit may be attached or placed in direct support of the RLT. This depends upon the feasibility of maintenance by MAB/division of centralized control of engineer operations and upon the scope of engineer tasks to be performed. The supporting mission of the engineer unit usually includes both combat and combat service functions. The S-3, coordinating his activities with the S-2, S-4, and the MAB/division engineer officer, determines the engineer support required by the RLT. Tasks to be considered are included in FMFM 4-4, Engineer Operations.

b. Tanks.--The primary mission of a tank unit is to lend maximum assistance to the infantry assault in accordance with the scheme of maneuver. Whether or not the tank unit will be placed in direct support or attached to the RLT depends upon the mission of the RLT and the feasibility of centralized control by division. The S-3, assisted by the S-2 and the division tank officer or the commanding officer of the tank unit assigned to support the RLT if a unit has been so designated, prepares an estimate.

(1) Considerations for determination of estimated tank support requirements are:

(a) The RLT mission, as expressed in the commander's concept.

(b) Feasibility of employing tanks in the zone of action of the RLT, with particular attention to the trafficability of the terrain.

(c) Nature of enemy defensive positions in the assigned zone of action and the degree of resistance anticipated.

(d) Probable time of landing tanks, based upon hydrographic conditions and beach and offshore obstacles, plus the contemplated scheme of maneuver ashore.

(e) Enemy armor capabilities including strength and probable places and times of employment.

(f) Reinforcing capabilities of enemy armor.

(2) For additional information, see FMFM 9-1, Tank Employment/Antimechanized Operations.

c. Air.--The S-3, assisted by the S-2 and the regimental air liaison officer, estimates the close air support required by the RLT.

(1) Consideration is given to the following:

(a) Targets to be destroyed or neutralized which naval gunfire ships cannot engage such as those in defilade or at too great a distance inland.

(b) Targets to be destroyed which are beyond the destruction capabilities of naval gunfire.

(c) Intervals during the approach to the beach and subsequent landing of scheduled waves when naval gunfire ships cannot fire because the fires are masked or because essential ship maneuvers will not permit effective fire.

(d) Large areas which require neutralization for only a short period of time.

(e) Smoke missions.

(f) Targets to be destroyed or neutralized in helicopter landing zones immediately prior to and during the landing of assault troops by helicopter.

(2) For additional information, see FMFM 5-1, Marine Aviation.

d. Field Artillery

(1) The division directive for planning usually includes a tentative allocation of field artillery support which is reflected in the artillery organization for combat; i.e., the tactical organization and the tactical mission. The basic element of the tactical organization is the artillery battalion. Under some circumstances, the artillery battalion may be reinforced or it may be minus some of its elements. A tactical mission of direct support provides the artillery commander with maximum latitude for response to the requirements of the RLT. Other artillery units may be assigned a tactical mission of reinforcing or general support/reinforcing the fires of the artillery battalions in direct support. When an RLT operates independently or at such a distance from other division artillery elements that centralized command of all artillery is not feasible, the artillery battalion may be attached to the RLT.

(2) The commanding officer of the artillery battalion tentatively designated to support the RLT may prepare an artillery estimate of supportability and recommend the assignment of additional artillery support when appropriate.

(3) The adequacy of the artillery support tentatively assigned or available may be determined by preparing an estimate of artillery requirements which takes into consideration the following:

(a) Mission of the RLT, as expressed in the commander's concept.

(b) Enemy situation, with particular attention to disposition and type of defense known to exist in the RLT zone of action.

(c) Terrain in the zone of action.

(d) Capabilities and possibilities of employment of other landing force weapons to augment field artillery fires.

(e) Tentative naval gunfire and air support to be available for the operation.

(4) For additional information, see FMFM 7-4, Field Artillery Support.

e. Naval Gunfire.--Naval gunfire is an important means of rendering fire support to the RLT during the amphibious assault and until enemy held terrain is beyond the effective range of the supporting ship's armament. The naval gunfire requirements, fire support ships assignments, and schedule of fires for the amphibious assault are made at the division level. These plans reflect the detailed requirements of the RLT which include location and type of installations to be destroyed, critical areas to be neutralized, and the ship requirements to render the necessary support for the scheme of maneuver. For additional information, see FMFM 7-2, Naval Gunfire Support.

f. Landing Craft and Assault Amphibious Vehicles.--The S-3, in conjunction with the S-4 and assisted by the S-2, prepares an estimate as to the most suitable type of landing means for landing and supplying the major units of the RLT. Factors to be considered include:

(1) Natural and manmade offshore obstacles such as reefs and sand spits.

(2) Velocity and direction of offshore currents.

(3) Prevailing surf and wind conditions.

(4) Nature and extent of beach obstacles.

(5) Trafficability of the terrain in the RLT zone of action.

(6) Nature of enemy defenses which may permit the transportation of assault waves a considerable distance inland prior to debarking.

(7) If it is determined that assault amphibious vehicles are to be employed, recommendations should be submitted as to the nature of control desired; i.e., in support of the RLT, attached, or under operational control.

g. Helicopters.--The warning order or outline plan from higher headquarters may prescribe that the RLT, all or in part, will be landed by helicopter. The RLT commander must then analyze his mission carefully, and evaluate the terrain and enemy situation in order to gain maximum benefits from the helicopterborne operation. He must select the landing zone(s) which will allow him to accomplish his mission, to provide for the early insertion of a self-sufficient combat force, and to add depth to the beachhead. For detailed discussion of the employment of helicopters, see paragraph 2903 and FMFM 5-3, Assault Support.

2207. REGIMENTAL LANDING TEAM PLAN OF ATTACK

a. General

(1) The plan of attack is a detailed plan for the seizure of those physical objectives which are vital to the success of the amphibious operation. The plan must contain three elements which are interdependent since all three must be considered in concert when planning assault landings. Such conflicting factors that still exist when detailed planning commences are reconciled by the division commander. These three elements are:

(a) Scheme of maneuver.

(b) Plan of supporting fires.

(c) Landing plan.

(2) The plan of attack must be one which will accomplish the assigned mission. It must be capable of logistic support by naval means and should make the best use of supporting fires. The plan should be simple to execute. Although expressed in detail, the plan must stress simplicity and flexibility to meet changes in the situation. The timing of waves and supporting fires are coordinated at all echelons of command.

(3) The S-3 prepares the plan of attack with the assistance of other members of the staff. Close coordination with the S-4 and representatives of the transport unit commander is necessary to ensure that the plan of attack can be supported.

b. Scheme of Maneuver Ashore

(1) The scheme of maneuver ashore is a plan for the seizure of objectives which will aid in the accomplishment of the assigned mission. The RLT commander's courses of action indicate several possible schemes of maneuver which may be adopted to accomplish the mission. Through the means of the commander's estimate, the various possibilities are carefully considered and the best scheme of maneuver selected.

(2) The RLT has little choice in the selection of the landing beaches or landing zones since division and higher headquarters select areas which are suitable to the overall scheme of maneuver. However, the RLT submits recommendations for minor modifications such as altering the limits of the beach so that a more favorable RLT scheme of maneuver may be adopted. The principles of land warfare are considered during amphibious planning in the selection of the best scheme of maneuver. The specific application is varied somewhat to conform to characteristics inherent in the amphibious operation such as the special sources of supporting fires, critical limitations on the initial availability of units in the assault, logistic limitations, and the condition and extent of the beach or landing zones. As enemy dispositions, terrain, and hydrography are conditions which must be accepted as they exist, the RLT selects a scheme of maneuver which provides not only the greatest opportunity for exploitation of terrain and enemy weaknesses after landing, but it also lies within acceptable limitations imposed by hydrography before landing.

(3) In an amphibious assault, certain special considerations require emphasis in formulating the scheme of maneuver to provide:

(a) The seizure of objectives requisite to the buildup of forces and supplies ashore.

(b) That the scheme of maneuver can be supported by naval gunfire, missiles, and tactical air until artillery and other support means are established ashore.

(c) That each assault BLT be capable of initial success without dependence on other assault units.

(d) For the early seizure of key terrain commanding the landing beach and boat lanes. Other key terrain not to be seized initially must be neutralized by fire.

(e) For the seizure of terrain features which will provide easy exit from the force beachhead line in the event plans call for continued operations ashore subsequent to the termination of the amphibious operations.

(f) For the timely landing of reserve elements. It is difficult to land the reserve by surface means on other than a preassigned landing beach. It is therefore highly desirable to gain early control of sufficient area to land the reserve. This provides for better dispersion and more maneuver space, when committed. The preplanned employment of helicopters greatly increases flexibility.

(g) The capability for employment of nuclear, and chemical weapons permits the attainment of deeper objectives than are suitable if only nonnuclear munitions are utilized. These weapons can effectively destroy or neutralize enemy beach defenses and permit troops in assault amphibious vehicles to traverse beach areas and secure inland objectives rapidly. Nuclear and chemical weapons can be employed to destroy or neutralize enemy defenses on specific inland objectives and thereby facilitate the use of helicopterborne forces. Consult NWP 28, Nuclear Warfare Operations, for further information.

c. Beaches and Helicopter Landing Zones

(1) An RLT beach is identified by a color; e.g., RED BEACH. A colored beach may be subdivided into BLT beaches designed by numbers; e.g., RED BEACH ONE. Although assignment of colored beaches to RLT's and numbered beaches to BLT's is typical, colored beaches may be assigned to BLT's in landings requiring a high degree of unit separation. See FMFM 6-3, Marine Infantry Battalion, and NWP 22-3(_), Ship-to-Shore Movement.

(2) A helicopter landing zone is normally composed of sufficient helicopter landing sites to accommodate the landing of a BLT. A helicopter landing site may be divided into two or more landing points, each having a capacity of one helicopter. Zones are designated by a compatible series of code names such as birds, flowers, animals, and trees. Sites are designated by colors and points by two-digit numbers. An example follows: landing zone PINE, landing site BLUE, and landing point ONE-SEVEN.

(3) In planning the scheme of maneuver ashore, the nature and extent of the beaches with attendant offshore and beach water areas and the helicopter landing zones with approach lanes and landing sites are examined in detail.

(a) Beach and hydrographic conditions may limit the frontage on which the initial assault is conducted. In a nonnuclear situation, it is desirable to land on a front as wide as is consistent with the requirement for depth to maintain the momentum and size of the assault unit or units involved. However, an excessively wide frontage can result in overextension of forces and provide opportunity for the enemy to counterattack small units before assistance can be obtained.

(b) The appropriate degee of unit separation in an amphibious landing, when the enemy use of nuclear, biological, and chemical weapons is anticipated, may vary widely and be limited by physical characteristics of the beach and the terrain behind it. Beach areas strongly held by enemy forces are reduced by the employment of nuclear fires, permitting friendly forces to land successfully in a dispersed formation. On the other hand, lightly defended beaches are regarded with suspicion since they may indicate an enemy plan to utilize nuclear fire without endangering his own forces. In these situations, units of BLT size should be landed on beaches with flanks at least 2,600 meters apart. BLT frontages may remain the same as for nonnuclear warfare since the BLT will not normally employ subordinate unit separation to reduce vulnerability to nuclear attack. The employment of nuclear preparatory fires may permit the assignment of larger beach frontages to BLT's when such wide frontages are required.

(c) The basic concept of a helicopterborne assault which employs several landing sites within a landing zone, separation between landing zones, and increased depth of the landing, partially fulfills the requirements for unit separation to reduce vulnerability to enemy nuclear fires.

(d) During land warfare operations, the seizure of an objective normally is accomplished by employment of forces in a main effort and one or more supporting efforts. During an amphibious operation, the situation ashore is usually developed prior to a determination of the main effort. The retention of adequate reserves provides the means by which the RLT commander can develop the momentum of the main effort after it has been determined.

(e) For further information on landing beaches and landing zones, see FMFM 5-3, Assault Support, and NWP 22-3, Ship-to-Shore Movement.

d. Plan of Supporting Fires.--Before detailed fire support planning can commence, the supporting arms representatives must be apprised, in general terms, of the RLT commander's requirements and intentions as they relate to fire support. They must know what is required, where, and when, in order to prepare the details of how it will be effected. The plan of supporting fires should provide guidance in the following areas:

(1) The tentative fire support means known to be available.

(2) General targets or areas which are of particular importance and against which particular supporting arms (or organic weapons) must be prepared to deliver fires.

(3) Maneuver elements to receive priority of support during a particular phase of the operation.

(4) Exclusive or exceptional reliance upon a particular supporting arm to support a particular maneuver phase or to accomplish a particular task.

(5) Whether or not a preparation is to be fired; if so, the approximate duration and intensity of such fires.

(6) Extent of planning required for the employment of nuclear and chemical fires to include effects desired and troop safety.

(7) General guidance relating to restrictions on use of fire support (surprise, conservation of ammunition, restricted targets, etc.).

(8) For supporting or attached fire support elements, in general terms, the time and place of landing.

e. Landing Plan

(1) The landing plan is considered concurrently with formulation of the scheme of maneuver and the plan of supporting fires. The landing plan is the basis for planning the ship-to-shore movement. (See sec. IX, ch. 2.)

(2) The dependence of the RLT on naval means for execution of the landing plan requires close and continuous liaison between the RLT and the transport unit. At the same time, liaison with the division headquarters

is maintained to ensure that the RLT landing plan, as it is formulated, is consistent with tentative division plans.

(3) While the considerations listed below are evaluated in formulating the scheme of maneuver and the plan of supporting fires, they are equally important while planning and preparing the landing plan.

(a) Hydrographic conditions of the sea approach to the landing beaches.

(b) The effects of beach terrain and the terrain adjacent and inland to initial objectives.

(c) The enemy situation, with primary attention to enemy fortifications whose fires command the sea approach, the landing beaches, and the terrain immediately inland; other enemy fires that may interfere with the landing.

(d) The anticipated effects of pre-H-hour bombardment by air and naval gunfire of the landing beaches.

(e) Supporting fires which are planned to isolate the landing beaches immediately after H-hour.

(f) The tentative assignment of landing means such as landing ships, landing craft, assault amphibious vehicles, and helicopters.

(g) The type of landing formation which best supports the scheme of maneuver and yet facilitates a rapid buildup of combat power ashore which will maintain the momentum of the attack.

(h) Flexibility in the echelonment of supporting arms and reserves.

(i) If available, the use of helicopters to provide added flexibility and mobility in movement of the reserve and/or combat support elements.

(4) The width of the landing beaches may vary from narrow to broad frontage. The width of the beaches and the considerations discussed in subparagraph (3) govern the type of landing formation adopted. Formations may vary from column of BLT's to three BLT's landing abreast in the waterborne assault. The employment of helicopters to transport assault troops provides many varied landing formations.

(5) If the considerations of timing, dispersion, control, and availability of means do not permit the desired landing formation, the RLT commander may be required to modify the scheme of maneuver. The RLT commander may decide that additional means are necessary. Such requirements are submitted to the division commander for approval.

(6) Naval aspects are also considered when formulating the landing plan. Such considerations include:

(a) Establishment of the line of departure and transfer lines.

(b) Establishment of boat lanes, helicopter approach lanes, transport and landing ship areas, and naval gunfire zones of responsibility.

(7) For further information, see FMFM 6-3, Marine Infantry Battalion, and NWP 22-3(_), Ship-to-Shore Movement.

2208. REGIMENTAL LANDING TEAM AS DIVISION RESERVE

a. The reserve RLT is the principle means by which the division commander influences a course of action ashore. Commitment of the reserve RLT, when afloat, is more complex than in normal operations for the following reasons:

(1) While afloat, its commitment depends upon the availability of landing craft, assault amphibious vehicles, or helicopters.

(2) Landing of the reserve by waterborne means may also depend on the availability of a suitable landing beach near the area of intended employment.

(3) The decentralized nature of initial operations ashore may complicate coordinating the landing of the reserve RLT with operations ashore.

(4) The early landing of the RLT on congested landing zones may invite nuclear attack.

b. Maximum flexibility of the reserve RLT is maintained until a specific need for its commitment arises. When the enemy possesses a nuclear capability, the landing force must be widely dispersed. The utilization of helicopters to transport the reserve RLT or some of its elements ashore provides the RLT commander added mobility and flexibility, thus providing him the capability for the rapid employment of his reserve RLT, when required.

c. The reserve RLT normally is assigned one or more of the following missions:

(1) To assume the mission of an attacking element.

(2) To be deployed against the enemy at any point to exploit known or suspected weakness and to add momentum to the attack.

(3) To protect the flanks and rear of the division zone of action.

(4) To maintain contact with adjacent units.

(5) To be prepared to reduce enemy resistance that has been bypassed by the attacking elements.

(6) To be employed as the counterattack force.

d. The reserve RLT commander and his staff must have a thorough knowledge of the mission and plans of assault RLT's. Once the assault RLT's are ashore, the reserve RLT commander keeps abreast of the situation from information provided by division headquarters and from his own liaison officers previously assigned to each assault RLT. Plans of a reserve RLT should provide for maximum flexibility.

2209. ALTERNATE PLANS

Alternate plans are prepared to meet changes in the enemy situation, the loss of ships and equipment, and variations in meteorological and hydrographic conditions. Such plans provide the RLT commander with flexibility needed to meet unforeseen developments during movement to the objective area and during the assault. The division normally provides guidance to the RLT for the preparation of alternate plans. An alternate plan may closely follow the basic plan, modified, however, to land the same assault RLT's in the same relative formation but on different beaches. Disruption or major change to the planned landing formation and sequence is avoided whenever possible to preclude the necessity to make major revisions to the landing plan. Under some conditions, however, the alternate plan may be a major modification to the basic plan; but, in any event, the preparation of numerous alternate plans is undesirable.

2210. OPERATION PLAN AND ANNEXES

a. Definition.--An operation plan is a plan for operations extending over considerable space and time and usually based on stated assumptions. It may cover a single operation or a series of connected operations to be carried out simultaneously or in succession. It is the form of directive employed by high echelons of command in order to permit subordinate commanders to prepare their supporting plans or orders. The designation "plan" is often used instead of "order" in preparing for operations well in advance. An operation plan may be put into effect at a prescribed time, or on signal, and it then becomes the operation order. In the operation plan, the commander translates his concept of operations into specific tasks for subordinate commanders. It reflects details of the situation, the mission, the decision, plan of action, and such matters as to the method of execution as are necessary to ensure coordinated action by the command as a whole. Although based on specific conditions or assumptions, plans are not static. By continuing estimates, analyses, and studies with the overall planning process, plans are changed, refined, and kept current.

b. Elements of a Plan.--The essential elements of a plan are a definite course of action and a method for its execution. A good plan should be simple, flexible, and capable of accomplishing the mission.

c. Responsibility for Preparation

(1) During preparation of the plan, the RLT commander provides continuing guidance and exercises close personal supervision. The preparation of detailed parts of the plan, including appended portions, is assigned to various staff and special staff officers. The RLT commander, however, must approve all portions of the plan before they are issued.

(2) Staff activity in the preparation of plans is directed and coordinated by the executive officer. The S-3 is responsible for assembling the completed plan and, when approved by the RLT commander, authenticates the plan and delivers it for distribution.

d. Content.--In order to ensure complete understanding, to provide for the inclusion of all essential instructions, and to facilitate reference, operation plans are promulgated in a standard form. FMFM 3-1, Command and Staff Action, contains the details.

Section III. INTELLIGENCE

2301. GENERAL

a. Intelligence planning commences with the receipt of planning memoranda from higher authority and continues through the operation. Intelligence efforts must, so far as possible, satisfy the immediate needs of the commander, serve as a basis for other planning, and ensure the development of adequate intelligence to support the assault and subsequent operations ashore. Intelligence planning at the RLT level must also be responsive to the needs of subordinate commanders. One of the peculiar characteristics of planning for an amphibious operation is the complete dependence of subordinate units upon higher headquarters for intelligence. This dependence does not relieve the RLT commander of responsibility for initiating requests to higher headquarters for additional intelligence needed to assist in formulating the RLT plan of attack.

b. The infantry regiment, formed as an RLT, may be assigned various types of intelligence specialists when directed by higher headquarters. However, during widely separated or independent landings, the RLT is usually augmented by several different intelligence specialists. Augmented intelligence specialists may, based upon the desire of the RLT commander, be assigned to subordinate units or directed to operate independently within the RLT zone of action.

c. An amphibious operation requires more detailed intelligence than do other forms of warfare. An early determination of basic requirements is essential to ensure timely collection. The greatest limiting factors in collecting amphibious intelligence are the distance from the objective and the requirement for careful coordination of collection activities with other operations. These may result in an increased lead time before the mission can be undertaken. The RLT will normally receive topographic maps and charts of the objective area, aerial photographs, shoreline photographs, and area intelligence studies, including the composition and strength of enemy forces in the area. This intelligence is required for the staff estimates. Basic intelligence requirements at all echelons of the command emphasize requirements set forth below:

(1) Enemy situation.

(2) Hydrographic conditions.

(3) Landing beaches.

(4) Weather conditions.

(5) Terrain.

(6) Political, economic, social, cultural, and psychological conditions.

(7) Cultural features.

(8) Nuclear, biological, and chemical operations.

d. To provide the RLT commander with means to enhance the surveillance and reconnaissance capability of the unit, reconnaissance teams and remote sensor personnel may be attached. These assets will augment the organizational capabilities, but it is essential that all the ground surveillance and reconnaissance missions be coordinated to provide for an effective collection effort. (See FMFM 2-1, Intelligence.)

2302. DETERMINATION OF INTELLIGENCE REQUIREMENTS

For amphibious operations, the commander must have all pertinent intelligence concerning the characteristics of the objective area (weather, terrain, hydrography, politics, sociology, and economics) and the enemy forces which can be brought to bear within the objective area. The S-2 must be aware of these routine requirements and seek the answers to them without specific direction from the RLT commander. For a detailed list of these requirements, see FMFM 2-1, Intelligence.

2303. COUNTERINTELLIGENCE

a. General.--The enemy can be expected to utilize available means to obtain detailed knowledge concerning our forces and their capabilities, limitations, vulnerabilities, intentions, and probable courses of action. The enemy will also exert every effort to gain information of the area of operations including weather, terrain, and hydrography. Foreknowledge on the part of the enemy concerning a projected operation by our forces may enable him to attack our staging areas and to concentrate his efforts of preparing the objective for defense. Such preparations may include reinforcing and redisposing his ground, air, and naval defense forces and the preparation of fortifications, mines, and obstacles. Accordingly, counterintelligence is essential to the security of our forces from the inception of planning until after the objective is secured. It is equally essential to the achievement of surprise.

(1) Military Security.--Military security encompasses all measures taken by a command to protect itself from sabotage and subversion and to deny information to the enemy. In Fleet Marine Force units, it emphasizes protection of airfields and other major installations and defeating hostile target acquisition efforts. Typical measures are use of passwords, communication and electronic security, restricting access to selected areas and installations, and counterreconnaissance.

(2) Operations Security

(a) Operations security is a vital consideration both in the planning and conduct of combat operations. Commanders and staffs at all levels should encourage and stimulate an awareness of the necessity for devising concepts and techniques to improve the effectiveness of military operations by denying the enemy prior knowledge.

(b) Some of the most common means by which the enemy may gain prior knowledge are:

1 Observation and analysis of stereotyped operational patterns.

2 Communication intercept.

3 Human intelligence collection efforts.

4 Tactical warning sensors.

5 Visual and auditory observations.

6 Analysis of press reports.

(c) Operations security concepts and techniques should be developed to include the following aspects.

1 Central control and direction.

2 Close integration of operations communication security and counterintelligence personnel.

3 A distinctly operations-oriented approach.

4 Concepts and techniques should not degrade or hamper operations.

b. Responsibilities.--The RLT commander is responsible for the counterintelligence effort of his command. The S-2 is directly responsible to the commander for planning, implementing, and supervising the counterintelligence effort. The S-3 has specific staff cognizance over matters pertaining to deception and counterreconnaissance. See FMFM 2-1, Intelligence, for additional specific details concerning counterintelligence.

Section IV. FIRE SUPPORT

2401. GENERAL

a. Inasmuch as fire support planning and its coordination is covered in section VII of chapter 3, only those aspects of fire support planning peculiar to amphibious operations are discussed here. For more detailed discussion, see FMFM 5-1, Marine Aviation; FMFM 7-1, Fire Support Coordination; FMFM 7-2, Naval Gunfire Support; FMFM 7-4, Field Artillery Support; FMFM 9-1, Tank Employment/Antimechanized Operations; and NWP 22-2, Supporting Arms in Amphibious Operations.

b. The success of the amphibious operation, and more specifically the success of the amphibious assault, is dependent to a great degree upon the effectiveness of the fire support received. The landing force must be supported to the maximum degree by naval gunfire and aircraft in support of targets ashore before, during, and after the initial assault landing and until adequate field artillery support is built up ashore. Fires are delivered to destroy or neutralize defenses capable of opposing the landing and subsequent operation ashore. Until the landing of artillery and tank units, the landing force is dependent upon fires from naval gunfire and air.

2402. FIRE SUPPORT PLANNING

a. General.--Fire support planning is intended to produce integrated fire support plans which employ all available supporting arms with maximum effectiveness in support of the scheme of maneuver.

b. Fire Support Planning Process.--The fire support planning process is a coordinated effort. The steps in this process are:

(1) Acquisition of targets.

(2) Analysis of targets.

(3) Recommendations for supporting arms to attack targets, includes areas for prelanding neutralization.

(4) Determination of requirements for supporting arms to support combat operations ashore.

(5) Preparation of coordinating instructions for the employment of attached supporting arms to accomplish (4), above.

(6) Preparation of coordinating instructions required to coordinate and control the fires of supporting arms.

c. Amphibious Considerations.--Air, artillery, and naval gunfire, to some degree, have overlapping capabilities. However, each is necessary during an amphibious assault since each has unique capabilities not duplicated by the others. Each may have the technical or theoretical capability to attack the same target but may not be operationally capable of doing so at the same time or when required due to such limitations as may be imposed by weather, terrain, hydrography, visibility, trajectory, range, communications, ordnance, or conflicting operational requirements. The determination of the requirements for each supporting arm must be based upon the unique operational capability possessed by that supporting arm.

(1) Fire support planning is conducted concurrently with planning the scheme of maneuver and the plan for landing.

(2) Normally, the RLT will receive a list of targets early in the planning phase. From this list, the RLT and assault BLT commanders will nominate targets for inclusion on the amphibious task force target list. The inclusion of a target on the amphibious task force target list implies responsibility for its attack and destruction.

(3) Regardless of whether or not a target appears on the amphibious task force list, target selection is the prerogative of the commander being supported. This is provided for through the D-day allocation of fire support means to the RLT. Although the plans to support D-day requirements are prepared by the amphibious task force, these plans reflect the detailed requirements of the assault RLT's and BLT's. The requirements may be stated in detail and include, as appropriate, specific targets or areas to be attacked, ammunition to be expended or result desired, and schedules for delivery. The RLT and BLT commanders must therefore review the list of targets and the terrain as they affect the plan for landing and the scheme of maneuver. The D-day fire support requirements may include targets or terrain not included on the target list. As a minimum, fires must be planned on known and suspected enemy positions which interfere with the landing and the seizure of initial objectives.

(4) Early in planning, the fire support requirements of the assault BLT's must be submitted to the RLT. These requirements may be submitted separately and cover the two aspects previously discussed; i.e., targets recommended for inclusion on the target list and detailed D-day requirements. The RLT commander and his staff review these requirements, consolidate, and submit to higher headquarters.

d. Fire Support Plan.--The fire support plan is a presentation of the RLT commander's decisions and requirements for the employment of fire support.

(1) The fire support plan may be used to portray the fire plans of air, artillery, and naval gunfire. It is published in the form of an appendix to the operations annex and titled "Fire Support."

(2) In the preparation of the fire support plan, it is necessary to make a distinction between that information which is properly directive in nature and that which is informative. See FMFM 7-1, Fire Support Coordination, for a discussion of a fire support plan.

2403. FIRE SUPPORT COORDINATION CENTER

a. The FSCC, functioning under the cognizance of the S-3, is the agency charged with the planning for the employment and coordination of fire support means. In this agency, the air, artillery, and naval gunfire representatives work closely together under the supervision of the fire support coordinator (FSC).

b. Due to the complexities of fire support planning for the amphibious operation, a well-trained FSCC is mandatory. Prior to the commencement of planning, the FSCC has not been activated but in most instances SOP's will have been formulated. During the preplanning period, the FSCC is activated to participate in training exercises such as command post exercises (CPX's) and field exercises (FEX's). Normally, the FSC will require additional FSCC exercises for the purpose of training personnel, improving teamwork, testing procedures, checking equipment, and increasing rapidity of action.

c. The FSCC is established in proximity to the locations of the S-2 and S-3. The establishment of the FSCC should include the following:

(1) Adequate work space and equipment.

(2) Direct communications with the S-2 and S-3 sections and adequate communications with the remainder of the RLT headquarters.

(3) Facilities for the display of situation maps and ready reference to target information data by the supporting arms representatives of the FSCC.

d. In addition to the usual preparation for embarkation common to all units, the FSCC and the S-3 and S-2 sections should, when possible, be located in the same working area aboard ship. During the embarkation and movement phase, the FSCC continues to review the fire support plan. Any new intelligence received or to be disseminated is reviewed to determine the possible influence upon the RLT plans for landing.

e. In the early stages of the assault and until the RLT FSCC is established ashore, the FSCC is limited primarily to the monitoring of preplanned fires as they relate to the progress of the troops and to monitoring requests for supporting fires from assault BLT's. Radio nets are monitored as directed. An exception to the above exists when the RLT is the only ground combat element of the MAB which is executing an amphibious operation. In such cases, the FSCC of the RLT normally functions in a manner similar to that of a landing force FSCC. See paragraph 2404 for a discussion of the functions of the supporting arms coordination center (SACC) of the amphibious task force and the landing force FSCC.

2404. FIRE SUPPORT COORDINATION DURING THE ASSAULT PHASE

a. Supporting Arms Coordination Center.--The SACC is a Navy staff agency through which the commander amphibious task force exercises overall coordination of the fires of air, artillery, and naval gunfire. The SACC is established early in the planning phase of the amphibious operation and operates on the flagship of the CATF. The SACC is under the supervision of the supporting arms coordinator (SAC), who is the direct representative of the naval commander charged with overall supporting arms coordination during this period. The SAC, with the advice of the landing force FSC, integrates the fire plans of the supporting arms to ensure their most effective employment in support of the landing force scheme of maneuver until the landing force FSCC has been established ashore. This includes the avoidance of duplication of efforts, specifying restrictive fire plans, and maintenance of an up-to-date target file. Decisions of the SAC are transmitted to the individual representative(s) of the supporting arms. These representative(s) then implement those decisions which require action relative to control.

b. Fire Support Coordination Center.--The FSCC is the agency through which the CLF plans and controls the integration of the fire of the supporting arms to best support the scheme of maneuver. The FSC is in charge of the FSCC and is the direct representative of the commander under whom the FSCC is functioning. While afloat, the FSC reviews requests from the subordinate assault units. He coordinates these requests and advises the supporting SAC of troop requirements for air and naval gunfire support. He further recommends the manner in which they should be employed to accomplish the most effective support. He keeps the SAC advised of the activities of field artillery units ashore. Coordination of landing force request for supporting fires is the responsibility of the CLF during all phases of the operation.

c. Relationships of Coordinating Agencies.--For relationships of coordinating agencies and transfer of coordination of fire support ashore, see FMFM 7-1, Fire Support Coordination.

2405. NAVAL GUNFIRE SUPPORT

a. General.--The fire support group, a naval organization, provides naval gunfire support to the landing force. Normally, minimum requirements for naval gunfire support are a fire support ship in general support of the RLT and one in direct support of each assault BLT. Closely related to the assignment of naval gunfire support ships are the designations of the sea areas (fire support areas) and zones of fire.

b. RLT Naval Gunfire Organization.--RLT naval gunfire representatives are provided by headquarters battery of the direct support artillery battalion. This representation consists of a regimental naval gunfire liaison team and two shore fire control parties, each consisting of a naval gunfire liaison team and a naval gunfire spot team.

c. Naval Gunfire Planning at the RLT Level

(1) Naval gunfire planning commences upon the initiation of operational planning by the RLT. An estimate is prepared to assist the commander in arriving at a decision. Based upon his decision and the concept of operations, naval gunfire requirements are determined.

(a) Pre-D-Day Requirements.--Normally, the RLT is only indirectly involved in the determination of pre-D-day requirements and the preparation of pre-D-day naval gunfire support plans. Such involvement consists of the selection of targets to be attacked, and when appropriate, a recommendation as to the means to be employed; i.e., naval gunfire.

(b) D-Day Requirements.--Normally, D-day requirements consist of preplanned fires necessary to accomplish final preparation of the landing area prior to and during the assault landing, and the assignment of naval gunfire support ships to provide continuing support as operations progress ashore.

(c) Post-H-Hour Requirements.--Normally, post-H-hour requirements consist of assignment of naval gunfire support ships, to provide continuing support for operations ashore subsequent to H-hour.

(2) RLT naval gunfire support requirements are embodied in the amphibious task force naval gunfire annex. An RLT naval gunfire support

plan, if prepared, consists of an extraction of applicable portions of that annex. RLT naval gunfire representatives normally assist in the detailed preparation of the amphibious task force naval gunfire annex. See FMFM 7-2, Naval Gunfire Support, for details.

2406. ARTILLERY SUPPORT

a. General.--Artillery support is not normally available in an amphibious operation until shortly after the initial assault landing has taken place. Planning for artillery support peculiar to amphibious operations involves the landing of personnel, equipment, and supplies. Except when artillery is attached, the RLT is involved in artillery planning to a limited degree only. When established ashore, artillery support and artillery fire planning is that associated with land combat.

b. Artillery Support Planning at the RLT Level

(1) Artillery planning is associated primarily with the plan for landing and support of operations ashore.

(2) Forward observer and artillery liaison teams are landed with and by the infantry unit to which assigned.

(3) Attached artillery is landed with and by the unit (RLT or BLT) to which attached.

(4) Artillery reconnaissance and command elements normally land in "free boats" in a surface landing; in scheduled serials in a helicopterborne landing.

(5) Artillery firing units are not normally landed until position areas are relatively free of small arms and mortar fire. Therefore, such units are usually landed "on call." However, when an early requirement for artillery is indicated, as in a helicopterborne landing, it may be included in scheduled waves. Whether artillery is attached or in direct support, the RLT must give consideration to position area requirements of supporting artillery units.

(6) When operational planning at the RLT level begins, an artillery estimate of supportability may be prepared to assist the commander in arriving at a decision. Based upon his decision and the concept of operations, artillery requirements are determined. Since artillery requirements and organization for combat (allocation) are derived by the division artillery officer, the statement of RLT requirements is necessarily limited. A statement of what, when, and where artillery support is required will assist artillery planners.

2407. TACTICAL AIR SUPPORT

a. General

(1) In an amphibious operation, the principal objectives of air operations are to gain and maintain air superiority in the objective area, to interdict enemy operations in the objective area, and to provide close air support to the assault elements of the Marine air-ground task force.

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(2) The various tasks which are performed in support of the amphibious task force are included within tactical air support. Tactical air support operations include the following:

(a) Close air support (offensive air support).

(b) Antiair warfare (includes air defense).

(c) Aerial reconnaissance and observation.

(d) Air movement operations (includes helicopterborne operations).

(e) Control of air operations and airspace control. For a discussion of airspace control, refer to LFM 01, Doctrine for Amphibious Operations.

(3) While the RLT, as part of the MAGTF, is either directly or indirectly affected by all of the tasks stated above, it is more concerned with the availability and the planning of close air support in the RLT zone of action. When the RLT is the landing force or when it is the ground combat element of the MAB, it is directly concerned with all of the tasks above. For detailed information concerning tactical air support, to include air support, see FMFM 5-3, Assault Support, and FMFM 5-1, Marine Aviation.

b. Organization for Combat

(1) There is no definite air support unit designated to provide tactical air support to the RLT and its subordinate units. Air elements assigned the mission to provide tactical air support provide it for the landing force as a whole.

(2) In addition to the regimental ALO, a TACP section, consisting of enlisted communication personnel, is provided for in the communication platoon of the regimental headquarters company. When the FSCC becomes operational, these communication personnel operate authorized radio equipment for the ALO.

(3) Each of the three BLT's of the RLT have an organic TACP consisting of an ALO, two FAC's, and the necessary communication personnel and equipment.

c. Tactical Air Support Planning

(1) Tactical air support planning commences upon initiation of planning by the RLT. The RLT commander provides planning guidance to include tentative availability of aircraft assigned to provide air support. As planning progresses, the ALO makes recommendations for the employment of tactical air support for each course of action proposed in the commander's estimate. Based upon the RLT commander's decision and his concept of operations, regimental tactical air support requirements are determined.

(2) Tactical air support planning is similar to naval gunfire planning in that requirements are divided into three phases. The phases are pre-D-day, D-day, and post-H-hour operations. The ALO, together with

other supporting arms representatives, carefully reviews the target list compiled by the amphibious task force to ascertain targets scheduled for attack within the RLT area of interest. The same review is concurrently conducted by the BLT's. Additional close air support requirements may be generated. These requirements are forwarded requesting that they be included on the target list and be attacked. Primarily, close air support requirements planned for at this stage are those for pre-D-day and D-day execution. D-day preplanned close air support consists primarily of pre-H-hour neutralization of beaches and helicopter landing zones. Subsequent on-call close air support requirements on D-day and for post-H-hour operations can be planned only in general since requirements will depend upon the tactical situation ashore.

(3) Other planning should include the following:

(a) Preplanned aircraft smoke missions. (See FMFM 6-3, Marine Infantry Battalion.)

(b) Night battlefield illumination requirements.

(c) Requirements for air delivery of supplies.

(d) Evacuation.

(e) Reconnaissance and observation.

(f) Delivery of emergency supplies.

(g) Air movement operations (includes helicopterborne operations).

d. Command/Control

(1) Tactical Air Command Center (TACC).--The TACC is the principal landing force air control agency. It is capable of directing, controlling, and coordinating all air operations and surface-to-air missile operations in the objective area. Until authority for control of air operations is passed to the CLF ashore, the TACC operates as a tactical air direction center (TADC) overall supervision of the TACC afloat, and accomplishes such air control functions as may be assigned. To accomplish its tasks, the primary landing force air control agency, whether operating as a TACC or a TADC, requires current intelligence on the ground and air situation, a means to display intelligence data which will permit rapid evaluation, and communication equipment to provide the means to shift airpower rapidly to meet changing requirements.

(2) Tactical Air Direction Center.--The TADC is an air operations installation under the overall control of the TACC from which aircraft and aircraft warning service functions of tactical air operations in an area of responsibility are directed. Additional TADC's are established as required by the magnitude of the operation.

(3) Direct Air Support Center (DASC).--The DASC is a subordinate operational component of the air control system designed for control and direction of close air support and other direct air support operations. It operates under the control of a tactical air command or tactical air direction center and is normally located near the landing force FSCC.

e. Communications

(1) Tactical Air Request (TAR) Net.--The TAR net is used by the FAC parties of the assault BLT's to request preplanned close air support missions. Prior to the establishment of the DASC, such requests are transmitted to the TACC or TADC, as appropriate. After the DASC is established ashore, all on-call close air support mission requests are transmitted directly to that agency. The FAC's requesting close air support missions over the TAR net (HF) are monitored by their respective ALO's. The RLT ALO monitors the requests of all FAC's of the RLT. If a request is not negated by the cognizant BLT ALO, silence by the RLT ALO indicates consent.

(2) Tactical Air Direction (TAD) Net

(a) The FAC parties of the BLT's utilize the TAD net to direct and control airstrikes on targets requested. In addition, this net may be used to request immediate close air support missions.

(b) Both the BLT ALO's and the RLT ALO can monitor the direction and control of an airstrike on the TAD net (UHF).

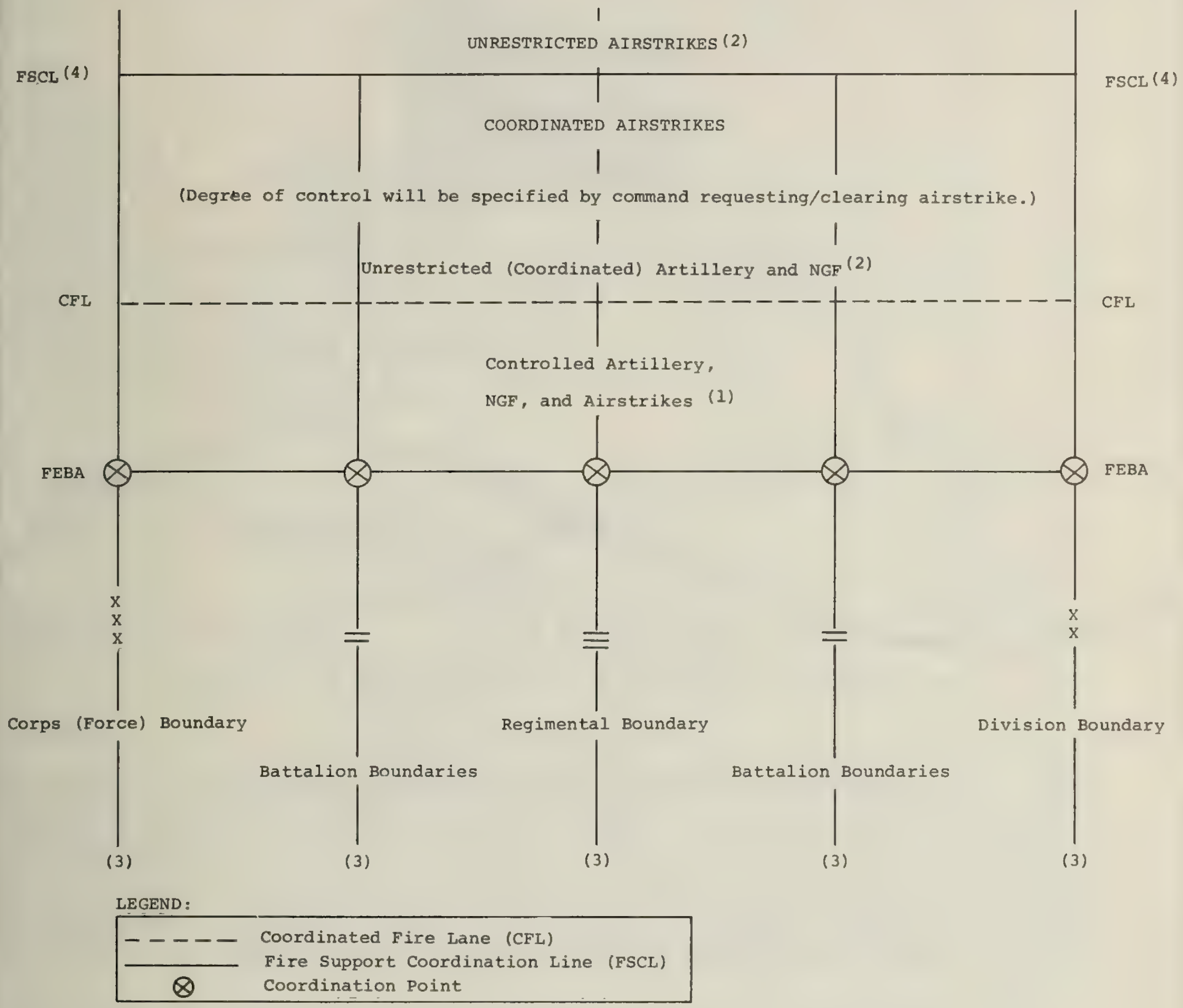
f. Close Air Support Plan.--The RLT ALO prepares the RLT close air support plan, under the supervision of the RLT S-3. It is closely coordinated and integrated with planning of the other supporting arms representatives. In its final form, it is published as an annex to the operation plan or as an appendix to a fire support annex.

2408. COORDINATING, CONTROLLING, AND LIMITING MEASURES

a. General.--The coordination of supporting arms requires certain coordination, controlling, and limiting measures to ensure safety and to facilitate control. (See figs. 6, 7, 8, and 9.) These measures prescribe limitations or responsibilities for subordinate and supporting unit commanders. In the offensive, care is taken to place coordination lines beyond the objective. This precludes the necessity for repositioning or modifying coordinated fire lines (CFL's) and fire support coordination lines during periods of critical action.

b. Zone of Fire.--A zone of fire is an area into which a particular artillery unit or fire support ship is prepared to deliver fire support. It is used to control the fire, laterally and in depth, to best support the action of the supported unit. When an artillery unit is assigned a tactical mission of direct support, the zone of fire corresponds to the zone of action of the supported infantry unit. Assigned a general support mission, the zone of fire includes responsibility for support of the entire area forward of the supported force. In the case of a direct or general support ship, the zone of fire should correspond to the zone of action, tactical area of responsibility (TAOR), or sector of defense of the supported unit.

c. Coordinated Fire Line.--The coordinated fire line is a line beyond which conventional surface fire support means (mortars, field artillery, and naval gunfire ships) may fire any time within the zone of the establishing headquarters without additional coordination. It simultaneously serves two purposes: first, it gives artillery and fire support ships freedom to attack targets beyond it without obtaining approval or coordinating with the supported command in whose zone of action targets are located; and second, it provides the supported commander with an area in which his troops can operate without being unnecessarily endangered by friendly artillery and naval gunfire.



NOTES:

1. All controlled fires are considered to be fully coordinated.
2. Unrestricted fires are coordinated only to the degree necessary to assure aircraft safety and to preclude duplication of target attack.
3. Fire support coordination responsibilities extend to the rearmost boundary of the unit indicated.
4. The fire support coordination line (FSCL) has been prescribed in STANAG 2099, Fire Coordination in the Land/Air Battle, to coordinate supporting fire by forces not under control of corps which may affect current tactical operations and is applicable to amphibious operations.
5. All fires, regardless of location, are integrated with the supported unit's plan of operations through internal coordination by control agencies of the supporting arm(s) involved.

Figure 6.--Example of Coordination and Limiting Measures.

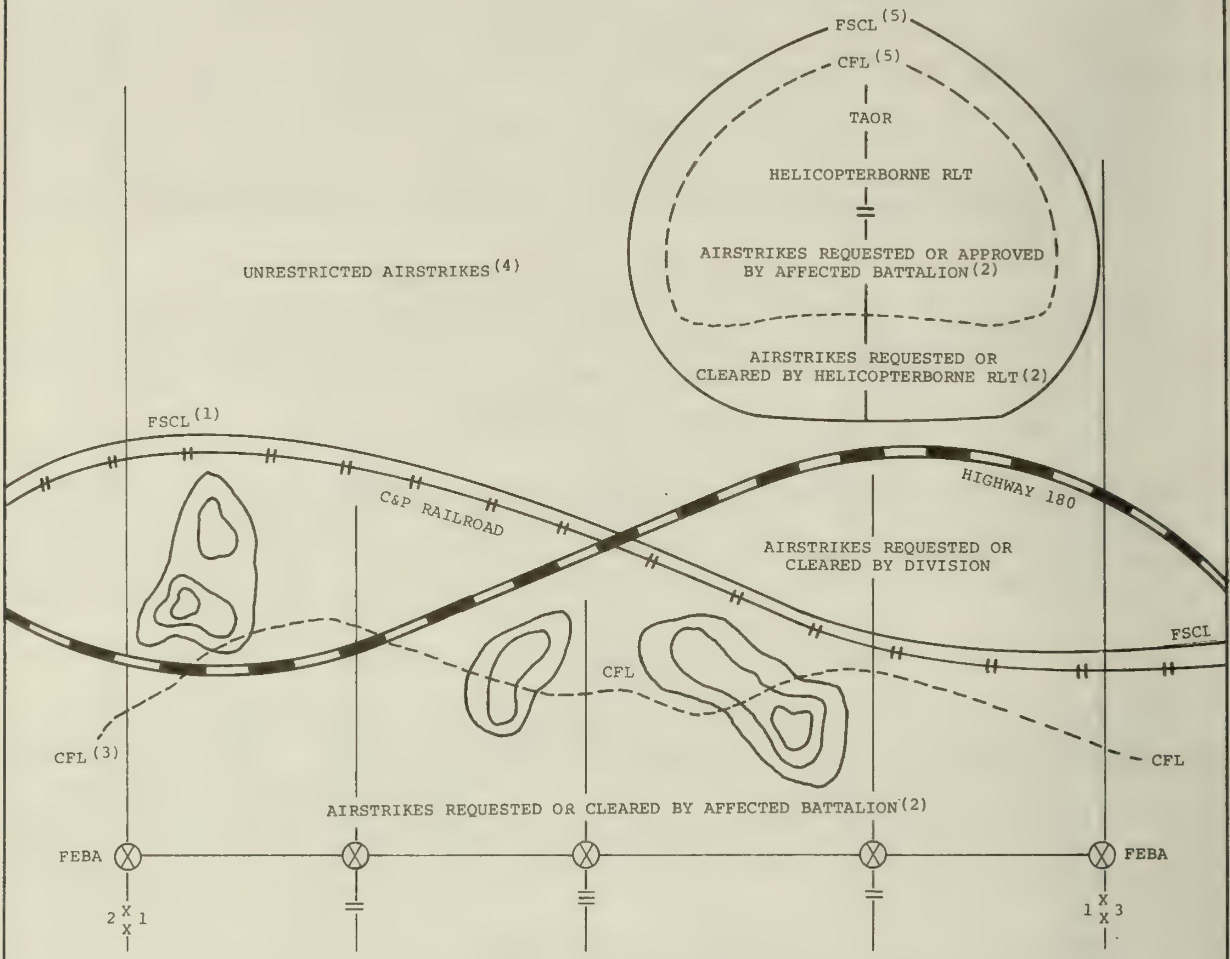

FSCL (5)
CFL (5)
TAOR
HELICOPTERBORNE RLT
AIRSTRIKES REQUESTED OR APPROVED BY AFFECTED BATTALION (2)
UNRESTRICTED AIRSTRIKES (4)
AIRSTRIKES REQUESTED OR CLEARED BY HELICOPTERBORNE RLT (2)
FSCL (1)
C&P RAILROAD
HIGHWAY 180
AIRSTRIKES REQUESTED OR CLEARED BY DIVISION
FSCL
CFL
CFL (3)
CFL
AIRSTRIKES REQUESTED OR CLEARED BY AFFECTED BATTALION (2)
FEBA
FEBA
2 X X 1
1 X X 3

Figure not to scale, nor meant to show typical employment of units.

NOTES:

1. FSCL is established by the landing force commander.
2. Degree of control or coordination required for an airstrike will be specified by the commander requesting or clearing the strike.
3. Although the CFL is primarily an artillery and NGF control and coordinating measure, it can also be used to delineate responsibility for control and coordination of airstrikes without modification or decreasing its value in relation to artillery and NGF support.
4. Airstrikes beyond the FSCL are unrestricted in that troop and aircraft safety are normally not critical factors nor is there a requirement for control by FAC's, TAC(A)'s, or ASRT's.
5. The FSCL and the CFL may be used by a helicopterborne force occupying a TAOR when their commander requests their use or when their use is directed by the commander exercising operational control. However, when appropriate, the trace of the TAOR may be used as the CFL or both the CFL and the FSCL.

Figure 7.--Employment of Fire Support Coordination Measures.

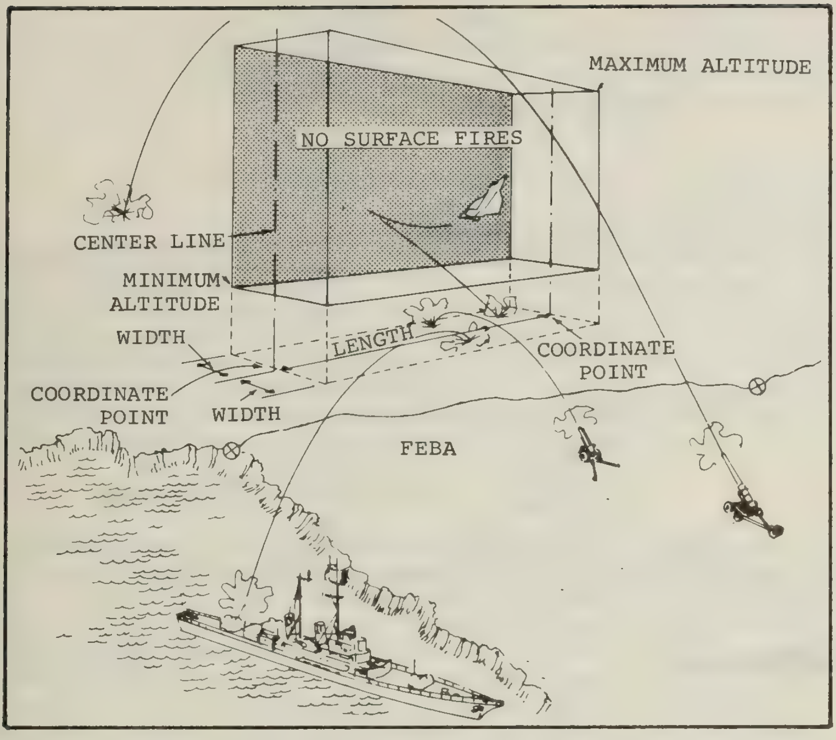


Figure 8.--View of a Typical Airspace Coordination Area.

(1) Responsibilities.--The CFL is the responsibility of the supported commander(s). Each supported commander from the infantry battalion up is successively responsible for selecting or approving a recommended location as it relates to his zone of action, tactical area of responsibility, or sector of defense. The location of CFL's recommended by the infantry battalion commanders is forwarded up the chain of command. A coordinated CFL is established by the ground combat element. Emergency or necessary changes to the established CFL submitted by the lower echelons in their respective zones of action are valid unless countermanded.

(2) Selection.--The location of the CFL is based on such factors as the scheme of maneuver, patrol plans, and the troop safety desires of the infantry commander.

(3) Dissemination.--The location of the established CFL of the ground combat element is disseminated through the various fire support coordination and fire control agencies to infantry units and the supporting arms concerned.

d. Restrictive Fire Line (RFL).--The RFL is established to coordinate fires between airborne or helicopterborne forces and juncture forces, or between converging forces. It is used to regulate all supporting fires as well as offensive airstrikes. Neither force will deliver fires or offensive airstrikes across the RFL without prior clearance of the other. As juncture becomes imminent, the RFL is moved as close to

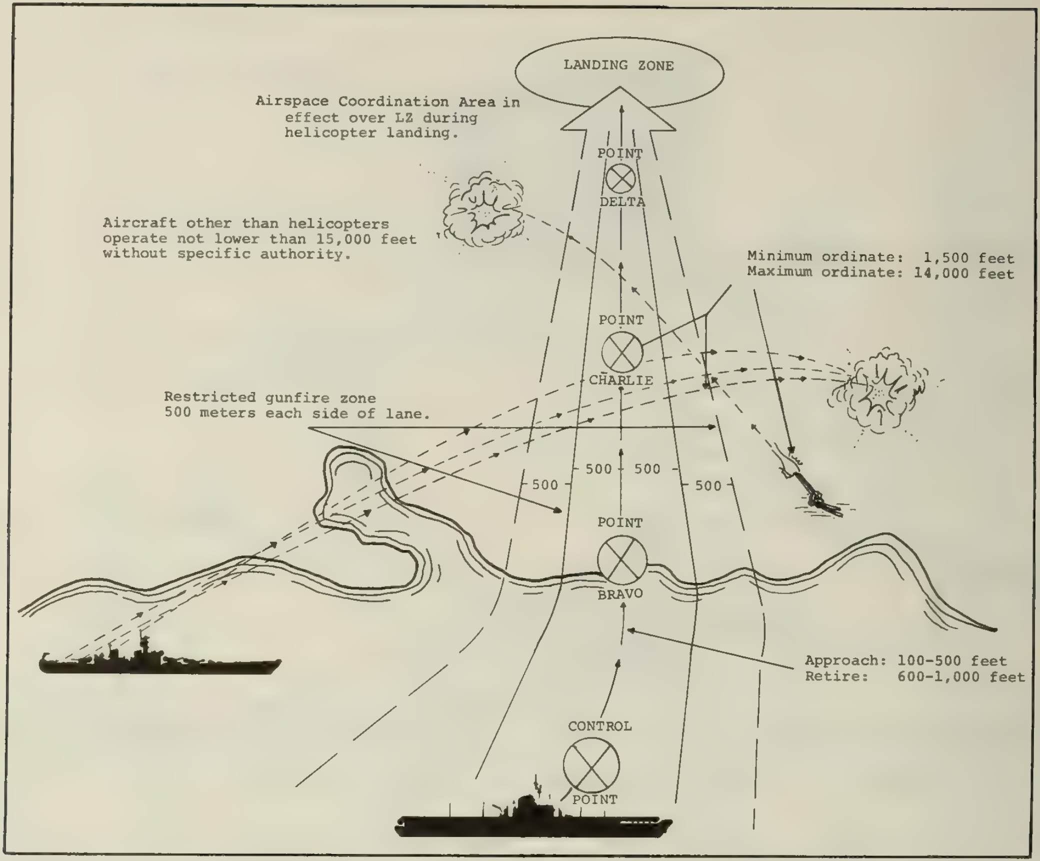

LANDING ZONE
Airspace Coordination Area in effect over LZ during helicopter landing.
POINT DELTA
Aircraft other than helicopters operate not lower than 15,000 feet without specific authority.
Minimum ordinate: 1,500 feet
Maximum ordinate: 14,000 feet
POINT CHARLIE
Restricted gunfire zone 500 meters each side of lane.
500
500
500
500
POINT BRAVO
Approach: 100-500 feet
Retire: 600-1,000 feet
CONTROL POINT

Figure 9.--Trajectory Limitations Across Helicopter Approach Lanes.

the stationary force as possible to allow maximum freedom of action to the linkup force. The RFL is approved and established by the senior common commander involved in the linkup operation. The responsibility for fire support coordination for the forces, once the juncture has been effected, must be clearly established in the operation plan or order.

e. Fire Support Coordination Line (FSCL).--As utilized in amphibious operations, the FSCL is a line beyond which all targets may be attacked by any weapon system (including aircraft and special weapons) without endangering troops or requiring additional coordination with the establishing headquarters. The effects of any weapon system may not fall short of this line. In land warfare involving a force larger than the MAF, the FSCL serves the purpose of requiring coordination of all supporting fires by forces not under control of the corps which may affect current tactical operations. In either case, the FSCL simultaneously serves two purposes:

(1) It provides ground commanders with sufficient control of aircraft to ensure troop safety, aircraft safety, and coordination of airstrikes with ground maneuver, and it precludes unnecessary duplication of supporting fires.

(2) It provides aviation commanders, air control agencies, and pilots of aircraft with sufficient information to clearly delineate the degree of control or coordination required before aircraft can attack ground targets in the corps area or amphibious objective area, as applicable.

(3) For further information, see FMFM 7-1, Fire Support Coordination.

f. Nuclear and Chemical Safety.--Present concepts no longer require a nuclear safety line (NSL). When necessary, nuclear and chemical strike warning messages, in format as set forth in FMFM 11-3, Employment of Chemical Agents, and FMFM 11-4, Employment of Nuclear Weapons, are used to announce troop safety measures. If timing is essential in the exploitation of nuclear and chemical weapon employment, close coordination can be achieved through use of phase lines, fire coordination lines, and other such control measures.

2409. AIRSPACE COORDINATION AREAS

As a safety measure for friendly aircraft on close air support missions, airspace coordination areas are established which provide an airspace that is reasonably safe from friendly, surface-delivered, nonnuclear fires. Airspace coordination areas should be used only when the risk to friendly aircraft is sufficiently great to justify the attendant loss of surface-delivered fire support. For certain operations, a series of airspace coordination areas may be established, as in the case of helicopter approach and retirement lanes. The FSCC provides, particularly at infantry battalion and regimental levels, a means of coordination that precludes the necessity for using airspace coordination areas on most air support missions. The commander has, through his FSCC, positive control or knowledge of surface fire support being delivered in his area of operation. He has positive communications with the aircraft through the TACP. Accordingly, with these means readily available, the commander can control or cease surface fire support whenever friendly aircraft may be endangered. See figure 8 for an illustration of the airspace coordination area used in landing force operations. The commander requesting an air support mission will recommend the airspace coordination area if required and disseminate the plan through his FSCC and artillery communication channels. Higher echelons will not impose an airspace coordination area contrary to the recommendations of the requesting agency unless the need is clearly indicated. Normally, only one airspace coordination area will be employed. It may encompass an entire division front, or portions thereof, depending on the flight patterns employed by the attacking aircraft.

2410. TRAJECTORY LIMITATION

Trajectory limitations are imposed on naval gunfire (and artillery) to permit fire support without interrupting helicopter operations. When possible, naval gunfire ships (artillery units) are positioned on each side of helicopter approach lanes in order to permit fire support without interrupting helicopterborne operations. To permit continuous fire support, a system of flight restriction and naval gunfire (artillery) trajectory limitations may be invoked. Such a system may require that over the approach and retirement lanes, helicopters normally operate at altitudes less than 1,000 feet with high-performance aircraft operating at altitudes exceeding 15,000 feet, thus affording safe ordinates for surface support weapons between 1,500 and 14,000 feet. This plan does not affect the use of airspace coordination areas discussed above. By using trajecjectory charts, the naval gunfire (artillery) officer can ascertain the areas in which each fire support ship (artillery unit) is able to place fire and thereby has an immediate guide for assigning ships to attack critical targets. (See fig. 9.)

2411. ADDITIONAL COORDINATION MEASURES

Coordination of nonnuclear, nuclear, and chemical fires, involving troop safety and tactical considerations that may affect adjacent units, is required. A system of warning should be planned and utilized when necessary for missions that are affected by changing meteorological conditions such as chemical fire missions. Smoke and illumination fires that extend into adjacent units' areas should be coordinated with the affected units. Instruction should cover the restrictions, if any, relative to the employment of any special or new types of fuzes and ammunition.

Section V. COMMUNICATIONS

2501. GENERAL

This section is devoted primarily to the discussion of communications and related planning at the RLT level from the initiation of planning for the amphibious operation until its termination. See section III, chapter 1, this manual, and FMFM 10-1, Communications, for additional details. In both planning and execution, the amphibious operation is a highly complex operation. This distinguishing characteristic is most clearly reflected in the complex system of communications required to support such an operation. While adequate communications are essential during all phases of an amphibious operation, they are most vital for control of the ship-to-shore movement and to maintain tactical control of subordinate units of the RLT during the assault phase.

2502. COMMUNICATION MEANS

a. Almost complete dependence is placed upon radio communications during the assault landing. Radio, including multichannel radio, is especially adaptable to amphibious operations.

b. Wire lines are seldom installed in the amphibious assault. However, wire lines should be installed when time and the tactical situation permit.

c. Within the RLT CP, a local telephone service is installed from the regimental switching center to designated staff and special staff sections. When the artillery battalion is integrated with or in proximity to the RLT CP, the wire systems of each are interconnected for the use of both.

d. Visual means should be used whenever conditions favor their employment. Visual means employed are flashing lights, semaphore, pyrotechnics, panels, and flag hoist.

e. Whistles, sirens, bells, and similar devices can be used to transmit messages and they are interpreted in accordance with a prearranged code.

2503. COMMUNICATION PLANNING

a. General

(1) The first consideration in communication planning is a determination of the requirements imposed by the plan of attack, higher commanders, subordinate units, and the logistic plan. To facilitate planning, the RLT communication officer establishes close liaison with his counterpart at higher, parallel, and lower command levels. To determine requirements, planning is conducted concurrently with all other operational planning and continues throughout the operation.

(2) Specific operational items are considerations in the development of the communications-electronics annex are:

(a) Mission and task organization of the RLT.

(b) Mission of higher headquarters.

(c) Communication facilities for embarkation.

(d) Arrangements for naval communication guard.

(e) Allocation of shipboard radio equipment for troop use.

(f) Composition of nets to be established.

(g) Assignment and coordination of radio frequencies.

(h) Assignment of call signs.

(i) Geographic and climatic limitations to communications.

(j) Technical and operational characteristics, capabilities, and limitations of communication equipment.

(k) Rehearsals to test the plan for effectiveness and adequacy.

(l) Communication security (physical and transmission).

(m) Cryptographic matters.

(n) Time zones.

(o) Channelization of multichannel radios.

(p) Teletypewriter utilization.

(q) Wire plan.

(r) Integrated wire-multichannel radio plan.

(s) Telephone service.

(t) Messenger service.

(u) Visual/sound communications.

(v) Communication supply and maintenance.

(w) Records/reports required.

(x) Waterproofing of equipment.

(y) Adequacy of standing operating procedures (SOP's) and communication operating instructions (COI's).

b. Embarkation

(1) The RLT communication officer, with other selected executive and special staff officers, usually accompanies the RLT commander to the first planning conference with the Navy transport unit commander. Normally, the two commanders authorize direct and continuous liaison between staff

members. This authorization is usually extended to subordinate unit commanders and their staffs. While pertinent information is exchanged between the RLT communication officer and his Navy counterpart at this time, detailed information is exchanged by their subordinate counterparts at subsequent conferences based upon the type shipping assigned and the composition of embarkation teams. The type of information exchanged includes the following:

(a) The ship's communications which are reserved for the use of landing force unit commanders.

(b) An established distribution of plans, orders, and other matters to ensure that all interested officers receive needed information. Normally, the RLT headquarters will be on the same ship with one of its BLT's. This requires that a separate distribution be established for the RLT headquarters.

(c) Promulgation of signal operation instructions.

(d) Information concerning the assumption of communication and cryptographic guard.

(e) A working inspection of all ship's systems allocated to the landing force and an operational check against Marine equipment to ensure readiness and compatibility.

(f) Special stowage and recharge area for explosive zinc batteries.

(g) An area for the repair and preventive maintenance work required on embarked communication equipment.

(h) Designation of a secure space for the stowage of landing force cryptographic equipment.

(2) Prior to the arrival of advance parties, each embarkation team communication officer makes arrangements for the following:

(a) Assignment for adequate space for the troop message center.

(b) Assignment of messengers to the ship's communication center and signal bridge, when required, for handling messages between these posts and the landing force message center.

(c) Preparation of a directive prescribing shipboard communication procedure while embarked.

(d) Stowage of communication equipment in a space readily accessible.

(e) Establishment of access list for classified information.

(f) Establishment of an authorized message releasing authority.

(3) Loading plans are coordinated to permit communication equipment to be stowed in an area readily accessible and to allow for the

proper sequence of unloading and also permit periodic servicing of equipment while on board ship.

(4) Embarkation area communication facilities are provided from sources external to the RLT whenever possible. The use of radio is normally restricted for security reasons. Wire and messenger service provide the principal means of communication. Communication facilities enable the embarkation officer(s) to control the flow of supplies, equipment, and personnel from the dumps, storage areas, and bivouac areas.

c. Rehearsals.--Rehearsals conducted prior to and en route to the objective area provide an opportunity to check the adequacy of communication plans, procedures, and equipment. All communication equipment should be landed and tested, if practical. Waterproofing materials or waterproof covers or containers are provided for all communication equipment. Equipment should be thoroughly cleaned, dried, and inspected.

d. Communications En Route to the Amphibious Objective Area

(1) General.--Radio silence is maintained during the movement to the amphibious objective area until such time as radio transmissions are authorized by the commander amphibious task force. During this phase, the Navy provides all ship-to-shore and external communications. All outgoing and incoming landing force communications are routed through the ship's communication center. Outgoing messages of the RLT originate with the RLT commander and are released by an authorized staff officer. When a BLT is aboard the same ship, it uses the same procedure for handling outgoing messages but remains separate from the RLT. Incoming messages of the RLT are handled by a landing force messenger in the ship's communication center who receipts for the message and delivers it to the landing force message center. When both the RLT headquarters and a BLT are on the same ship, a joint or separate message center may be operated. However, when a joint message center is functioning, care must be taken to ensure that the integrity of each message center is maintained as regards files, accountability, and internal distribution. It makes distribution of all landing force messages in accordance with written instructions furnished in the form of a "routing guide" covering all probable subjects and their cognizant staff action and information agencies.

(2) Written Messages.--Written messages within the convoy may be delivered by surface vessels, aircraft, helicopters, or visual means. Helicopters are normally utilized.

(3) Training and Maintenance.--Training conducted during the movement to the amphibious objective area primarily consists of assignment of Marine communication personnel to assist Navy communication personnel. When nearing the amphibious objective area, equipment is checked and prepared for landing. Attention is given to the condition of batteries and waterproofing. Radio sets are checked to ensure that correct frequencies are set.

e. Helicopterborne Ship-to-Shore Movement

(1) General.--The speed of execution of the helicopterborne assault requires that communication planning be detailed and closely coordinated with higher and lower echelons and with supporting ground and air units. Lengthy orders and reports are avoided by using SOP's and prearranged

plans and message codes. Communication requirements are futher reduced by personal contact, command and staff interchange of liaison officers, and verbal orders. See FMFM 5-3, Assault Support; FMFM 6-3, Marine Infantry Battalion; and FMFM 10-1, Communications, for additional information.

(2) Means of Communication.--The conditions inherent in helicopterborne assault landings dictate a reliance upon radio and messenger service in establishing initial communications. Specifically, the earliest stage of a helicopterborne assault is characterized by a primary dependence upon radio.

(3) Electronic Countermeasures (ECM).--Because of the sensitivity of electronic equipment necessary for the conduct of a helicopterborne operation, effort must be made prior to and during the landing to locate and destroy enemy ECM equipment.

(4) Communication Equipment.--While airborne, the commander has access to equipment installed within the command and control helicopter which he can use to talk to higher, adjacent, or subordinate commanders.

(5) Communications for the Helicopterborne Landing

(a) Terminal Guidance Teams

1 If a terminal guidance team is utilized it enters the net as provided in a prearranged schedule. The aircraft assigned to establish contact with terminal guidance teams receives its reports and retransmits them to the TACC. Other stations monitor this net as required.

2 Communications between elements of the terminal guidance team are established on the landing zone local net when required. This net is usually activated on a prearranged time schedule.

3 Prior to the arrival of the landing zone control team in the landing zone, and immediately prior to launching of the helicopter waves, the terminal guidance team may be required to guard helicopter direction (HD) nets 1 and 2. These nets are UHF voice nets used for short range control of all airborne helicopters in the objective area. The nets are guarded by all helicopter control agencies, airborne helicopters, the tactical air controller (airborne) (TAC(A)), and terminal guidance teams as required. A helicopter direction HF voice net designed for backup, long range control of helicopters is available, when required. This net is guarded by all airborne helicopters, helicopter control agencies, and the landing zone control team (initially, if directed, by terminal guidance teams). The landing zone control teams assume guard for these nets after arrival in the landing zone.

4 Wire is not installed at this stage of an operation. However, to supplement radio and message means, each team must have a system of visual communications.

(b) Helicopter Control Elements of the Helicopter Support Team

1 The helicopter control elements of the HST's are called landing zone control teams and are normally provided by the helicopter unit designated to make the lift. (See FMFM 4-3, Landing Support Operations.)

2 Since helicopter direction nets 1 and 2 are at only the controller's location, a means is provided to link all the sites. This is accomplished by the landing zone local net, designed to serve the HST commander in control and coordination of activities within the landing zone. In its secondary role, the net links the landing site controllers with the landing zone control officer. If the landing sites are to be used for an extended period of time, and if they are located sufficiently close to the landing zone controller, wire is installed between the controller and each site. Messengers are available as an additional means of communication.

(c) Logistic Support Elements of the Helicopter Support Team.--During the ship-to-shore movement, the HST commander enters the battalion tactical net of the supported battalion. This net allows the battalion commander and the company commanders to make requests directly to the HST commander for supplies. If the requested supplies are not available locally, the HST commander can submit requests to the proper source of supply over the helicopter support team logistics net. This net connects the HST commanders with the TAC-LOG groups of the helicopterborne force, the division TAC-LOG group, and the division shore party. The helicopter support team logistics net also permits HST commanders to request supplies from other landing zones rather than from rear areas.

1 In shore-to-shore movements, radio communications are identical to those provided for the ship-to-shore movement except in the following respect: no helicopter support team logistic net is activated during the shore-to-shore movement. Instead, battalion commanders submit logistic requests direct to the commander of the logistic support area over the infantry regimental command net.

2 Wire lines can normally be installed from the HST commander to supply installations, the supported unit commander, and all landing sites. Wire connections are of particular importance if operations are expected to continue over an extended period. Once wire is operational, radio is placed on a standby status.

f. Waterborne Ship-to-Shore Movement

(1) During the ship-to-shore movement, primary reliance is placed on radio communications. Navy and landing force communication plans provide for sufficient channels of communication during the ship-to-shore movement to permit the exercise of those measures of control and coordination which are required at all echelons. The RLT communication plan provides for the rapid development of RLT communication systems ashore in order to respond to the needs of the tactical situation as the assault progresses. Radio silence is usually lifted just prior to H-hour at which time the communication equipment of all units of the RLT, to include attached and supporting units embarked, is tested.

(2) Each of the two RLT command groups provides for sufficient communication equipment and personnel to maintain command and control. When the communications of the regimental commander's echelon becomes inoperative, the executive officer's echelon assumes immediate control. Command LVT's and helicopters equipped with radios compatable with RLT frequencies are utilized by the command groups. In the waterborne assault, the control vessel's communications located in the vicinity of the line of departure can be utilized to communicate with naval elements and certain elements of the landing force. Additionally, the TAC-LOG group stationed

aboard the control vessel has direct communications with shore party units and BLT's ashore which may be utilized as a backup. Organic and alternate communication systems discussed above provide the command groups with the means to keep abreast of the situation ashore.

(3) Assault elements activate their own tactical nets on order. They normally remain on listening silence until just prior to the landing of initial assault waves.

(4) Assault BLT's request supplies via the shore party. In emergencies, the BLT communicates directly with the TAC-LOG group concerning the landing of critical supplies and equipment. Upon consolidation of the shore party teams into the shore party group in support of the RLT, requests then flow from the BLT's to the group over RLT radio or wire systems.

(5) See figure 10 for an example of a typical regimental tactical net in an amphibious assault.

g. Communications for the RLT in the Helicopterborne Assault Landing.--The RLT commander usually establishes his command post ashore

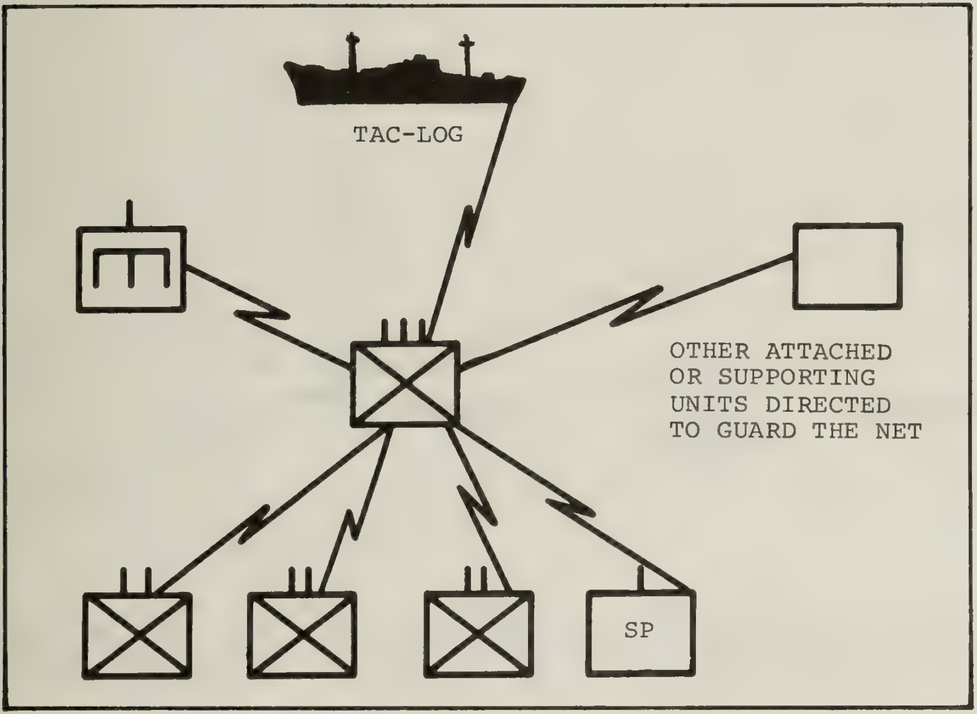

TAC-LOG
OTHER ATTACHED OR SUPPORTING UNITS DIRECTED TO GUARD THE NET
SP

Figure 10.--A Typical Net in the Amphibious Assault.

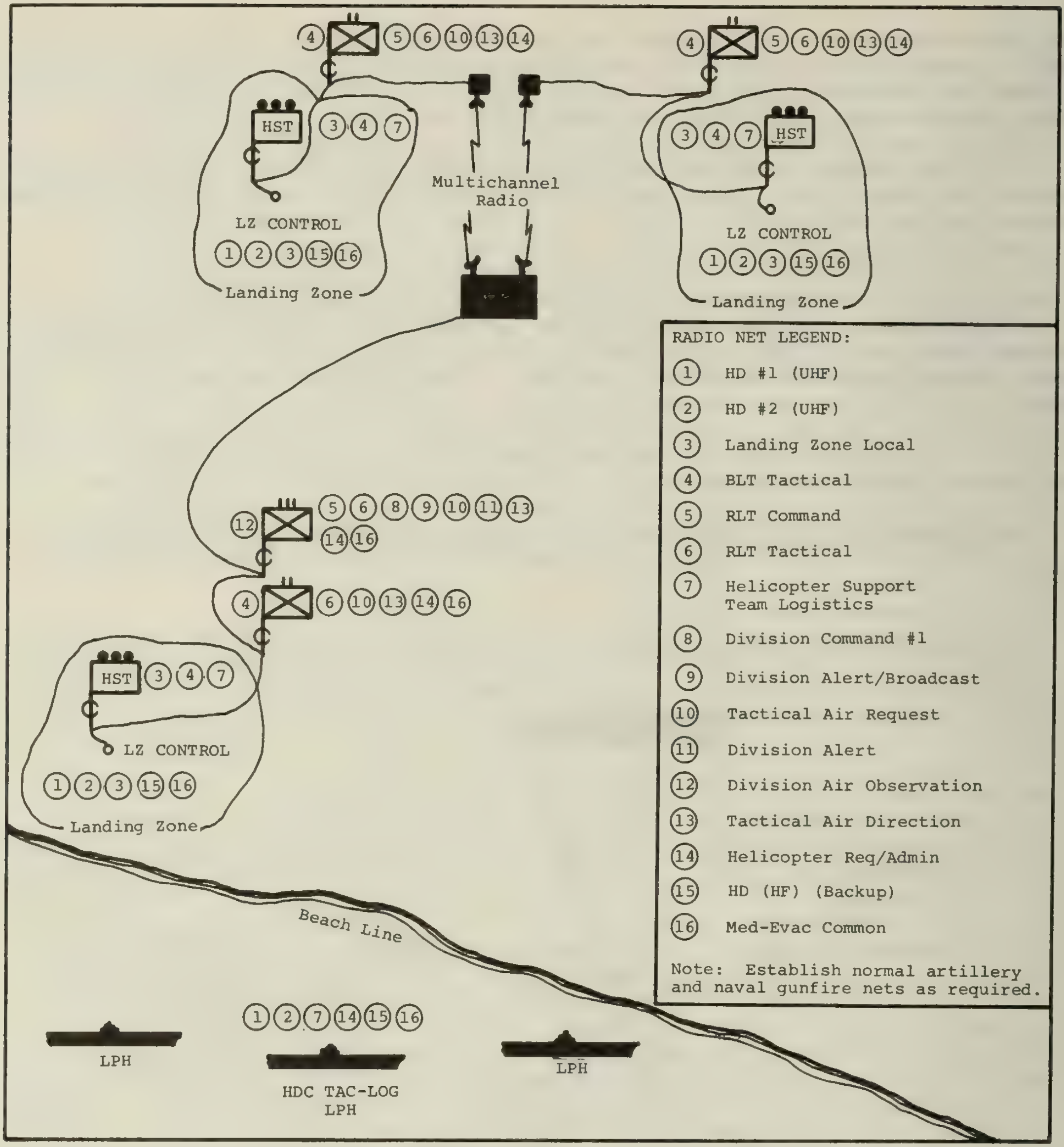


Figure 11.--Helicopterborne Landing Communications.

in the landing zone occupied by one of the BLT's. As a result, the RLT headquarters does not require a separate HST for support; rather, it relies upon the HST already operating in the landing zone. (See fig. 11.)

Section VI. LOGISTICS AND PERSONNEL

2601. GENERAL

a. The principles and procedures of logistics and personnel planning applicable to all levels are discussed in detail in FMFM 3-1, Command and Staff Action; FMFM 4-1, Combat Service Support for Marine Air-Ground Task Forces; FMFM 4-3, Landing Support Operations; FMFM 4-5, Medical and Dental Support; and FMFM 5-3, Assault Support. See section X for information on the shore party group. Embarkation is discussed in section VII.

b. Subordinate elements of the RLT are provided supply and maintenance support directly from division combat service support units, or force combat service support units. This is necessary because the regiment/RLT has no organic service units to provide such support. While the sources of supply may change both in organization and location during the phases of an amphibious operation, the procedure permitting the user to deal directly with the supplier prevails. This eliminates the double handling and the inevitable delays resulting from interposing an additional headquarters between the supply source and the user. During the early stages of the assault, the supply requests of assault BLT's are submitted directly to the shore party team/HST in support. The shore party team/HST is responsible to submit requests and to receive and distribute supplies to BLT supply points. When assault RLT's move to locations which are an extended distance inland, the beach support area is usually dissolved and a logistic support area (LSA) is established further inland to provide supply and maintenance support for each assault RLT. BLT's then submit requests for supplies and maintenance support directly to the supporting LSA. An exception to this procedure occurs when the combat service support elements are attached to the RLT in widely separated landings and when the RLT is designated as the landing force. In such cases, BLT's submit supply and maintenance requirements directly to the RLT. However, in any situation, the RLT commander is responsible for the logistic functions of units of the RLT. In the early phase of planning, he provides planning guidance which establishes the quantity and type of supplies to be carried. Through command liaison, conferences, and staff visits, the RLT commander and his staff assist subordinate units in determining logistic requirements and in formulating logistic plans. The RLT commander monitors the logistic activities and planning of his subordinate units throughout all phases of an amphibious operation to ensure that logistic plans adequately support the tactical plan.

2602. LOGISTIC PRINCIPLES

a. A logistic support system which is simple, balanced, and immediately responsive to the needs of the RLT must encompass the following principles:

(1) Planning and provision of logistic support is the commander's responsibility.

(2) The impetus of logistic support is from seaward forward to the point of application ashore.

(3) The logistic support system should provide support directly from source to using unit, bypassing intermediate echelons or installations.

(4) Combat troops are relieved of logistic burdens to the greatest extent possible.

(5) Coordination of tactics and logistics is mandatory.

(6) Required logistic support is delivered in the needed amounts at the right time and place.

(7) Resources of the unit are fully exploited before drawing on external agencies.

(8) The logistic system must ensure economical application of logistic means by providing for adequate but not excessive means.

(9) The logistic system must be flexible, mobile, and simple in design and execution.

2603. LOGISTIC PLANNING

a. Logistic planning for an amphibious operation must provide for accomplishment of the following objectives:

(1) The orderly assembly and movement of personnel, supplies, and equipment of the RLT.

(2) The establishment and maintenance of a support system in the objective area which will provide responsive and adequate logistic and administrative support to the RLT.

b. The development of the RLT logistic support plan is based on command planning guidance, the operation plan, directives issued by higher headquarters, experience factors, tables of allowances, and individual unit requirements.

c. Logistic planning for an amphibious operation commences upon the initiation of planning by the RLT and progresses concurrently with the tactical planning as a continuous, detailed process. It proceeds from the preparation of the logistic estimate and the initial estimate of overall requirements for supplies and combat service support, to the establishment and operation of a logistic support system in the objective area.

d. Logistic planning is conducted concurrently at all levels of the landing force on the basis of information available. It is subject to continued adjustment and readjustment as information is received and new requirements are generated, concurrent with plans of every unit or element having a logistic impact on the operational planning of the RLT.

e. The requirements of the RLT for cargo and troop space in assault shipping must be based on support of the landing plan and operation ashore.

f. The requirement for scheduled resupplies and for on-call resupply must be integrated into a plan which provides for quick, flexible responses to the combat situation.

g. The need to shift the logistic support system of the RLT from sea to land without loss of momentum of the attack is peculiar to the amphibious operation. The development of logistic support ashore includes:

(1) Landing of prescribed loads with individuals and units.

(2) Employment of floating dumps.

(3) Replenishment of helicopterborne forces.

(4) Selective unloading.

(5) Establishment of service facilities ashore.

(6) General unloading.

(7) Resupply.

2604. PLANNING SEQUENCE

a. The logistic planning process involves two phases. The first phase is the preparation of the logistic estimate. The second phase is the determination of how to support the course of action chosen by the commander.

b. Based on the commander's planning guidance, the logistics officer makes a detailed estimate of the situation in which he considers all aspects of logistics as they affect the mission of the RLT. The logistic estimate must present an orderly examination of the factors of supply, evacuation and hospitalization, transportation, and service support as they pertain to the courses of action under consideration. The logistic estimate:

(1) Assesses logistic capabilities and limitations.

(2) Determines whether logistic capabilities are sufficient to support a contemplated course of action.

(3) Determines which course of action is most desirable from a logistic standpoint.

c. In supporting the commander's course of action, four steps are involved:

(1) Estimate of Overall Requirements.--Based on the commander's concept of operation, overall logistic requirements for each phase of the operation are estimated.

(2) Computation of Detailed Requirements and Presentation to Higher Authority.--The computation of requirements provides the basis for refinement of the previously stated overall requirements which are finally presented to higher authority as specific logistic support requirements. It is a detailed statement of what is required and by what means the requirements will be met. It includes mount-out supplies, assault shipping, resupply, and combat service support.

(3) Allocation of Means and Assignment of Responsibilities.--The commander allocates the logistic support means assigned him to his subordinates in the RLT and assigns specific logistic responsibilities.

(4) Final Preparation of Plans.--When all logistic requirements and means are determined, administrative/logistics and embarkation plans are published.

2605. PLANNING CONSIDERATIONS

a. Consideration must be given to the following factors in planning for the logistic support of the RLT:

(1) Mission of the RLT.

(2) Characteristics of the objective area.

(a) Resources.

(b) Climate, weather, and terrain.

(c) Indigenous population considerations.

(3) Enemy situation and capabilities.

(4) Characteristics of operations to be supported.

(5) Composition of the RLT, to include attachment of combat service and combat support elements.

(6) Time span of the operation.

(7) Approximate date of embarkation.

(8) Tentative shipping assignment.

(9) Tasks requiring special supplies and equipment.

(10) Landing plan and scheme of maneuver ashore.

(11) Logistic support responsibility in the objective area upon termination of the amphibious operation.

(12) Equipment modifications.

(13) Medical requirements.

b. For other considerations, see paragraphs 2204 and 2205.

c. Logistic planning is accomplished by determining the support required in the objective area first and continuing in reverse sequence. Considerations are listed below:

(1) The logistic estimate and situation based on available information and decisions of higher echelons and the RLT commander.

(2) The receipt of supplies of the RLT until higher echelons have landed and assumed responsibility for operation and control of supply activities ashore.

(3) Embarkation planning (see sec. VII).

(4) The landing plan and ship-to-shore movement.

2606. BASIC LOGISTIC FUNCTIONS

a. Supply.--Supplies are combat classified in 10 classes according to their use or consumption characteristics. These classes of supplies are identified by Roman numerals I through X. They are used in supply planning and administrative instructions. Aviation supplies and equipment have the letter "(A)" after the Roman numeral. See FMFM 4-1, Combat Service Support for Marine Air-Ground Task Forces, for detailed information. The requirements of supply support in an amphibious operation are divided into two main categories--assault supplies and resupply. The RLT and its subordinate units are primarily concerned with assault supplies. Assault supplies include the following categories:

(1) Requirements.--The requirements of supply support in an amphibious operation are divided into general categories: assault supplies and resupply. The RLT and its subordinate units are primarily concerned with assault supplies.

(2) Assault Supplies.--Assault supplies comprise those supplies loaded in assault shipping which accompany the RLT to the objective area and provide the required initial support for the landing and associated operations. They include the prescribed loads, floating dumps, and all other RLT supplies.

(a) Prescribed Loads.--Types and quantities of supplies which a commander prescribes for the support of designated subordinate units, normally expressed in days of supply or fractions thereof, are known as prescribed loads. The prescribed load is not a fixed quantity and may change from day to day, or from operation to operation, at the discretion of the commander as necessary under the prevailing resupply conditions. A primary factor in setting the prescribed load is the amount of supplies which can be carried by individuals or in assigned transportation.

(b) Landing Force Supplies.--Landing force supplies are those which are required for the support of the landing force in the objective area excluding prescribed loads. During the ship-to-shore movement, a portion of these landing force supplies are contained in floating dumps, with the remainder being unloaded during either the selective or general unloading periods.

1 Floating Dumps.--Supplies preloaded in landing craft, landing ships, or assault amphibious vehicles and available on-call, are termed floating dumps. Floating dumps are established to provide critical items of supply for which an early need is anticipated. When a need for supplies arises, a request is sent through command channels to the shore party. If the request cannot be filled because the supplies are not available in beach support area dumps, and if the requirements for the supplies is so critical that the time factor does not allow delivery from ships in the transport area, then the request is relayed to the TAC-LOG group, with instructions to dispatch the appropriate floating dump to the beach. When dumps are established ashore and replenishment can be provided from shore-based installations, there is no further requirement for floating dumps. The vehicles or landing craft so employed are then landed, unloaded, and released for other uses.

2 Remaining Supplies.--These include landing force supplies not included in prescribed loads and floating dumps. They

constitute the major part of the supplies carried in assault shipping. The bulk of these remaining supplies are landed after commencement of general unloading.

(3) Resupply.--Resupply comprises the supply support transported to the objective area in followup shipping which is required to support the tactical operation ashore. The RLT is not responsible for resupply planning, unless it is conducting an amphibious operation as the landing force. See FMFM 4-1, Combat Service Support for Marine Air-Ground Task Forces, for detailed information concerning resupply.

b. Evacuation and Hospitalization.--Detailed medical requirements are primarily based upon the evacuation and medical policies prescribed by higher echelon, the RLT plan of attack, logistic planning factors (see par. 2604), and specific considerations as they pertain to evacuation, hospitalization, treatment, and preventive medicine. The BLT medical officers, in close coordination with and under the supervision of the RLT medical officer, review medical means allocated to ensure that they meet the demands of the BLT's. Medical requirements cover the preembarkation period, movement to the objective area, and operations ashore. Evacuation requirements are based on casualty rates, medical facilities ashore and afloat, transportation, and medical support allocated to support the RLT. A collecting platoon is normally attached to each assault RLT to assist in the evacuation of casualties. The adequacy of this support, based upon the estimated casualty rate, is considered by the RLT medical officer and the S-4. If a high casualty rate is estimated, it may be necessary to request additional personnel to augment the collecting platoon. See FMFM 4-5, Medical and Dental Support, for detailed information.

c. Transportation

(1) The regimental S-4 is concerned with the use of all types of transportation for movement of supplies, equipment, and personnel. Additional transportation requirements are primarily influenced by the following:

(a) Mission of the RLT.

(b) The prescribed load required to be landed by the RLT.

(c) The schedule for resupply.

(d) Road nets.

(e) Distance involved.

(f) Availability of additional transportation.

(g) Fuel and maintenance.

(2) Priorities are placed on combat vehicles, command vehicles, and logistic vehicles in this respective order. The attachment of additional transportation may require that a portion of the vehicles be further attached to assault BLT's to support tactical and logistic plans. Based upon allocation and type of shipping, the tactical and logistic plans of assault BLT's, and the type landing to be conducted, the S-3 in close coordination with the S-4 assigns priority and phasing of vehicles in the assault.

d. Service.--During the initial stages of the amphibious assault, the principal combat service support required by the RLT is the support provided by the shore party and helicopter support teams. Maintenance and repair of equipment during initial assault is limited to what can be performed with the means available to assault elements. BLT's have an organic service platoon capable of performing second echelon maintenance on organic motor transport and engineer equipment. With the exception of fire control equipment, ordnance personnel can also provide second echelon maintenance for organic ordnance equipment. The buildup of supplies ashore and the landing of combat service support units permit the establishment of major supply installations located within a logistic support area (LSA). An LSA may provide support for one or even two RLT's. It normally is capable of providing third echelon maintenance and, if necessary, can be organized to perform limited fourth echelon maintenance. Combat service support elements which may be in direct support or attached to an assault RLT include the following:

(1) Motor Transport.--A motor transport company is normally attached to an assault RLT. However, in the initial stages of an assault, the majority of these trucks often may be attached to the shore party team in direct support of the RLT. Upon their release by the shore party team commander, they report to the motor transport company commander at the RLT command post.

(2) Shore Party.--The shore party group commander controls and coordinates shore party activities within his assigned beach. Normally, the area of responsibility of the shore party group, consisting of two or more shore party teams and other attachments as may be required, controls the beaches over which an RLT lands. Its primary tasks are to facilitate the movement of troops, equipment, and supplies across its assigned beaches; to provide supply support to the RLT; and to evacuate casualties and prisoners of war. See paragraph 21009 for further information.

(3) Assault Amphibious Vehicles.--In addition to the employment of assault amphibious vehicles in tactical missions, they may be required to perform logistic support tasks for the RLT or the shore party group supporting the RLT.

(4) Engineers.--While engineers perform combat support tasks for the RLT, they also perform combat service support tasks. The S-4 determines critical combat service support tasks which are foreseeable in the RLT zone of action. An excellent example is the requirement for constructing or repairing road nets in the RLT zone of action. The RLT commander provides the division engineer officer an estimate, based on recommendations of the S-3 and S-4, of the requirements of the RLT for both combat and combat service engineer support. These requirements are compared with preliminary estimates at division level and integrated into the division engineer plan. In addition, particularly during the early stages of the assault, priority for engineer combat service support may be assigned to tasks which will assist the shore party group.

(5) Military Police.--While a military police section is included as a part of the shore party group to control motor traffic, stragglers, dumps, and other activities in the beach support area, there may be a requirement for military police in the RLT zone of action. For example, if a road net with numerous one-way roads makes strict control measures in the RLT zone of action necessary, it is advisable to recommend that military

police be attached to the RLT during the period prior to the time the division can assume control. Other considerations will be of concern to the S-1 and S-2, who estimate military police requirements for handling captured military and civilian personnel. The capture of quantities of enemy supplies and equipment will require military police assistance for security.

2607. LOGISTIC PLANNING (HELICOPTERBORNE FORCE)

a. General

(1) The logistic planning for a helicopterborne force launched from an amphibious assault ship (LPH), amphibious transport dock, or a landing ship dock (LSD) in an amphibious operation is similar to that for a force conducting a helicopterborne assault when operating ashore. This paragraph considers only those logistic aspects which are peculiar to the helicopterborne amphibious assault. (See FMFM 5-3, Assault Support.)

(2) The entire RLT or only selected subordinate units may be designated to conduct a helicopterborne amphibous assault in an amphibious operation. Normally, a helicopterborne amphibous assault force lands in conjunction with a waterborne amphibious assault force. The overall logistic planning process for both types of forces is the same. In addition to the tactical mission performed as a principal component of the helicopterborne force in the amphibious assault, helicopter units perform logistic and administrative support missions in support of assault troops. Support missions include:

(a) Buildup of required levels of supply ashore.

(b) Casualty evacuation.

(c) Resupply, both routine and emergency.

(d) Messenger service.

(e) Wire laying.

(f) Salvage evacuation.

(g) Prisoner-of-war evacuation.

(h) Movement of repair and damage control teams.

(i) Transporting members of the RLT staff and assigned liaison officers.

b. Basic Considerations.--Basic considerations require that:

(1) The RLT and subordinate units must be free of excessive logistic burdens.

(2) The level of supplies carried with RLT helicopterborne forces must not impair mobility.

(3) The logistic system must be economical, simple, and flexible; however, it must be consistent with the requirements of adequate support of operations ashore.

(4) Tactical and logistic plans must be closely and continually coordinated to ensure availability of helicopters for logistic support of helicopterborne forces.

(5) Logistic support must satisfy requirements of both the RLT and helicopter units.

(6) Planning should provide for alternate means of logistic support. For example, the use of fixed-wing aircraft for aerial delivery provides flexibility in executing tactical and logistic plans.

(7) Plans for the logistic support of helicopterborne forces must be coordinated and integrated with the plans for the overall logistic support system to include the attachment of adequate combat service support elements to each HST. Plans also provide for the shift of supply sources from amphibious shipping to shore-based installations. Such plans require that surface-landed supplies be prepared in advance for helicopter delivery and that designated supply installations establish helicopter landing sites.

c. Planning Requirements

(1) Plans include allocation of helicopters to provide initial and continuing logistic support of the helicopterborne force. All available helicopters may be employed initially for the landing of combat troops and their equipment in the assault. However, plans must provide for the availability of helicopters for early landing of supplies to build up and maintain desired supply levels ashore, and for the landing of subsequent units. Helicopter availability is considered when planning subsequent helicopterborne tactical troop movements.

(2) General considerations concerning helicopter requirements include personnel and amounts of equipment and supplies to be landed by helicopter; the time period within which personnel, equipment, and supplies must be landed; types of helicopters available; distance; weather; and the terrain factors.

d. Helicopter Support Team

(1) A helicopter support team is a task organization composed of personnel and equipment of the helicopterborne force, the supporting helicopter unit, and augmentation from other units as required. A team normally is attached to the helicopterborne unit and is employed in each landing zone to provide support to helicopterborne units landing in that zone. Its composition, organization, and equipment are governed by the scope of the contemplated operation.

(2) There is no standard organization for an HST. The ground nucleus for the team may come from the tactical ground unit or the shore party battalion. Normally, when a logistic buildup is planned in the vicinity of the landing zone, the nucleus of the HST is drawn from the shore party battalion. With no buildup planned, the nucleus comes from the service elements of the helicopterborne unit augmented by control personnel from the helicopter unit. (See fig. 12.)

(3) When the RLT headquarters is helicopter lifted ashore, an existing HST provides the required support.

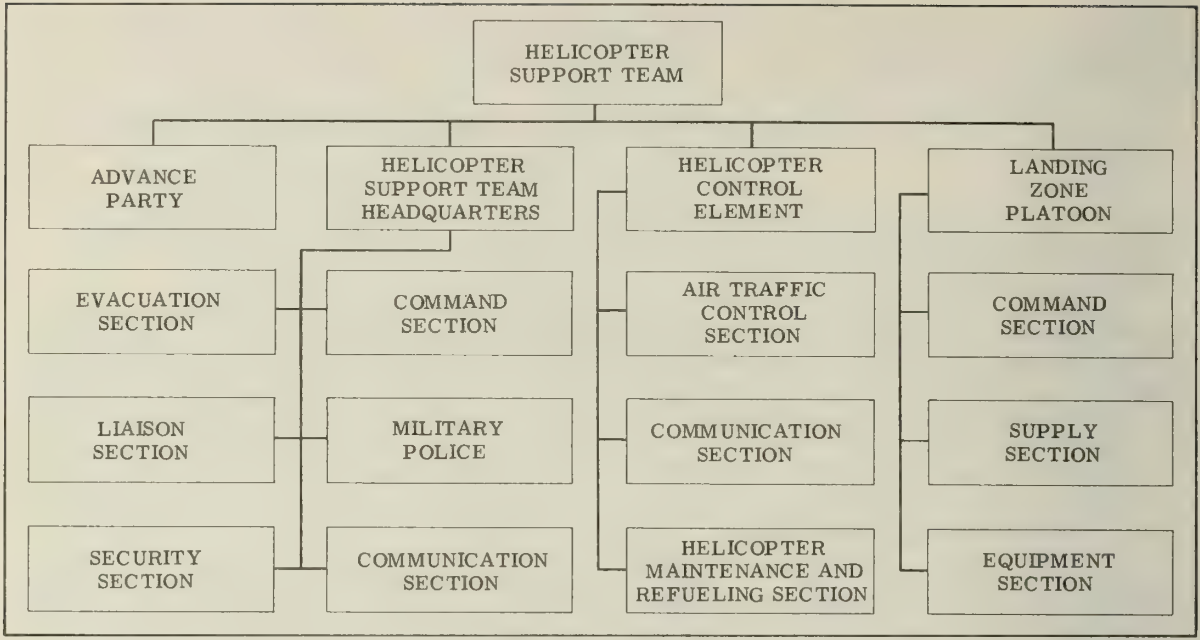


Figure 12.--Example Helicopter Support Team
(to be tailored to unit needs).

(a) Organization of the Helicopter Support Team.--In arriving at the organization of the HST, the planner considers the need for the following:

1 A helicopter support team headquarters with command, evacuation, military police, security, communication, and liaison sections.

2 An advance party of command, communication, liaison, and other required personnel of the helicopterborne unit and supporting helicopter unit. The advance party lands in early waves and expands the command and communication system of the HST. Upon completion of these tasks, the advance party is disbanded and assigned other tasks within the support team or returned to the parent organization.

3 A landing zone platoon composed of command, supply, and equipment sections. It performs such assigned tasks as preparing, maintaining, and marking landing sites for unloading and loading helicopters, transporting cargo to distributing points, and operating supply installations.

4 A helicopter control element which may be composed of landing sections. Headed by a landing zone control officer, the helicopter control element is utilized to control all helicopters operating in the vicinity of the landing zones. Personnel for this section are provided by the helicopter unit designated to make the lift.

(b) Tasks Performed by the Helicopter Support Team

1 Tactical.--The HST establishes and operates electronics and visual navigation aids to guide aircraft, establishes and maintains required communications, directs and controls helicopter operations within the landing zone, and participates in local security as required.

2 Logistic.--The HST selects areas adjacent to landing sites for distribution points and other logistic installations, HST CP's, casualty evacuation stations, and defense positions for logistic installations. Additionally, the HST must unload and load helicopters; operate material handling equipment; maintain records of supplies received, issued, and on hand; and prepare supplies and equipment for helicopter movements. Other duties include the loading of casualties in helicopters for evacuation, maintenance of landing zones and sites, and the provision of mobile maintenance teams, when necessary.

(c) Delivery of Supplies and Equipment

1 Types of Helicopter Delivery.--Air landed and freedrop methods may be used in delivering supplies by helicopter.

a Air Landed.--Helicopters normally land when carrying internal loads and hover while discharging external loads. External loads provide greater flexibility and speed by reducing loading and unloading time.

b Freedrop.--Packaging requirements for freedrop from low altitude helicopters are less stringent than packaging requirements for freedrop from fixed-wing aircraft. In many instances, standard containers reinforced with steel strappings will suffice to withstand the shock of low altitude helicopter drops. Helicopters equipped with power hoists to lower cargo are useful for fragile loads, but this method is usually too slow for normal missions.

2 Loading Procedures.--Careful planning is necessary to ensure that supplies and equipment are prepared for lift and are spotted at the proper time in order to retain the speed advantage gained from the use of helicopters.

e. Organization of Landing Zones for Logistic Operations

(1) Supply Landing Sites.--An important factor to be considered in the selection of landing sites is the determination of their suitability for logistic support operations. When the initial landing site is not suitable for landing supplies, it is necessary to select one or more alternate landing sites for this purpose. The principal factor considered in the selection of these alternate landing sites is the accessibility of desirable areas for supply operations.

(2) Distribution Points for Supplies and Equipment.--Distribution points for supply classes will be established within each landing zone and marked with shore party markers. Satisfactory landing sites are located at or near distribution points. Landing sites of sufficient size with clear approaches and exits accessible to troop supply personnel are desirable. Consequently, they are chosen to take advantage of the terrain

so that ground traffic to and from the distribution point will not interfere with the landing helicopters. Rapid movement of supplies from the landing site to the distribution point is facilitated so that there will be no interference with subsequent helicopter landings.

f. Logistic Support of Helicopter Units.--Prior to displacing helicopter units ashore, provisions are made for their logistic support. It may be desirable to displace helicopter units ashore early in the assault but the displacement is not initiated until logistic requirements can be adequately fulfilled. Plans should provide for the performance of maintenance checks, servicing, and repair aboard ship until suitable facilities are established ashore. When helicopter units are displaced ashore, it is essential that rear bases be provided for helicopter maintenance.

g. Logistic Procedures

(1) Landing of Supplies

(a) Equipment and supply items initially landed with assault troops should be adequate to support operations ashore for approximately 24 hours.

(b) Ample reserves of critical supply items are held readily available aboard each assault helicopter carrier for emergency on-call delivery. Additional reserve supplies are prepositioned aboard other suitable ships which have helicopter platforms.

(c) Helicopters must be available for resupply flights following the landing.

(d) Emergency resupply by airdrop from transports or other aircraft is planned as an alternate means of delivery.

(2) Sequence of Logistic Operations.--Logistic support for helicopter operations normally follows this sequence:

(a) Prescribed loads are landed with assault troops.

(b) Each helicopter support team advance party lands in its designated landing zone, improves the landing sites, and selects locations for helicopter support team installations.

(c) After landing, helicopter support team personnel establish and mark supply landing points and make preparations to receive and distribute supplies.

(d) Supplies and equipment are landed in accordance with predetermined schedules, except as modified by landing force unit requirements ashore.

1 Emergency supply requests are filled from prepositioned supplies afloat, using the first available helicopters.

2 The helicopter support team commander is advised when requested emergency supplies are en route and if the supplies cannot be delivered directly to the unit concerned, he prepares for expeditious unloading and subsequent delivery to requesting units by the most rapid means available.

(e) During the early hours of the helicopter ship-to-shore movement, casualties are returned via available helicopters.

(f) When the majority of supplies aboard the assault helicopter carrier are landed, the ship's platoon is then reduced progressively.

(g) After linkup with surface-landed forces is made, resupply of helicopterborne forces may be effected by surface means.

h. Logistic Support of Helicopterborne Forces Ashore

(1) Helicopterborne Assault Operations.--Procedures for logistic operations ashore are similar to those used in the waterborne assault; however, unit distribution is normally employed for helicopterborne forces and in addition, the following modifications may be required:

(a) Techniques and Procedures

1 Liaison is established and maintained between helicopter units and supported ground units throughout the planning and execution.

2 Loading plans are prepared by the helicopterborne unit commander working with the helicopter unit commander. These include a loading zone diagram, a detailed list of supplies, an arrival schedule for supplies at each loading site, and details of helicopter load restrictions.

3 Service and supply personnel of the helicopterborne unit, augmented by helicopter control and communication personnel from the helicopter unit, perform loading functions in the loading area.

(b) Relationship With Higher Echelon Service Units

1 Supplies delivered by helicopters are furnished by designated combat service support units of the landing force.

2 Supplies are loaded aboard helicopters at the supporting logistic unit site for delivery directly to the helicopterborne unit. Daily planning provides for helicopter availability to the logistic agencies resupplying the helicopterborne forces and ensures the responsiveness of the resupply system.

(2) Combat Operations Ashore

(a) In providing logistic support to ground units, helicopters may be employed to supplement or supplant other forms of transportation.

(b) Request for supply support are submitted directly to the supply source. The determination of delivery means is the responsibility of the supporting logistic agency.

1 Requests for supply should routinely include the amount and type of supplies needed, the recommended delivery time (RDT), and deadline delivery time (DDT), and should also give coordinates of primary and alternate delivery points. In addition, coordinates of both surface and aerial delivery points are submitted.

2 If surface delivery of supplies is feasible, the supporting logistic agency makes delivery by that means. If conditions require use of helicopters, the logistic agency submits a request for helicopter support. When the information concerning delivery means becomes available, the supporting logistic agency notifies the requesting unit of the means to be employed and the estimated time of delivery and requests that appropriate marking panels be displayed at both the primary and alternate delivery points.

3 The commander of the unit receiving supplies is responsible for ensuring that:

a All landing sites are cleared and marked properly.

b Sufficient personnel and equipment are available to handle supplies.

c Casualties are loaded for return trips.

4 The helicopter unit commander is responsible for ensuring that:

a Pilots are properly briefed as to location of the landing sites and approach and retirement lanes.

b Helicopters possess the slings and spreaders which are provided by the service support unit.

c Airborne helicopters are able to communicate with landing sites.

d Arrangements are made for maintenance and refueling of helicopters.

5 The headquarters in control of the service unit and the helicopter unit must approve the request for helicopter support, allocate helicopters, and issue orders to the helicopter unit and to the service unit which is to furnish the supplies. For detailed information, see FMFM 4-3, Landing Support Operations, and FMFM 5-3, Assault Support.

2608. PERSONNEL PLANS

a. The purposes of RLT plans pertaining to personnel are to maintain the strength and combat effectiveness of the RLT and to provide necessary services for members of the command. Requirements, information, and instructions are usually set forth in the personnel paragraph of the division administrative/logistics plan. The factors set forth in the personnel paragraph are as follows:

(1) Strengths.--The initial strength or strength for embarkation, and required strength reports.

(2) Replacements.--The employment of replacement units, availability of individual replacements, and requisitioning and processing procedures.

(3) Discipline, Law, and Order.--The control and disposition of stragglers and military justice.

(4) Prisoner of War.--The collection, safeguarding, evacuation, treatment, and discipline of prisoners of war.

(5) Graves Registration.--The evacuation and processing of the dead, cemetery location, and disposition of personal effects of the dead.

(6) Morale and Personnel Services.--Includes decorations and awards, rest and leave, postal service, exchange service, pay, and religious activities.

(7) Personnel Procedures.--Promotion, reduction, rotation, and transfer.

(8) Interior Management.--The movement, location, and internal arrangement of the command post.

(9) Civilian Employees.--The procurement, utilization, administration of civilian employees.

(10) Miscellaneous.--Personnel and administrative matters not covered elsewhere.

b. The RLT S-1 prepares paragraph 5 of the administrative/logistics plan in coordination with the S-3 and S-4.

2609. ADMINISTRATIVE/LOGISTICS PLAN

An administrative/logistics plan is a formal statement of the necessary information and instructions under which the elements of the command administer personnel activities and receive logistic support. By concurrent, parallel, and detailed planning, much of the ground work for the plan is completed before the plan is written. Staff estimates, the commander's estimate, conferences at the division headquarters and with representatives of the transport unit commander, and administrative memoranda provide manterial upon which the RLT plan is based. Throughout prior planning, the administrative/logistics plan is formulated in fragmentary form with each essential part receiving approval from the RLT commander. During this stage of preparation, the S-4 maintains a worksheet which follows the general form of the desired formal administrative/logistics plan. As the RLT commander approves the various parts of the plan, they are entered in the worksheet. Actual writing of the plan begins when division headquarters issues a tentative (outline) administrative/logistics plan. The RLT uses this outline as a checkoff list to ensure that its own is complete and accurate. When division headquarters issues its final plan, the RLT merely incorporates into its own plan any applicable new developments and issues a final RLT administrative/logistics plan. See FMFM 3-1, Command and Staff Action, for the prescribed format for an administrative/logistics plan or order.

2610. STAFF ASSISTANCE

Staff assistance in the preparation of estimates, plans, and annexes is obtained by briefing interested staff members on the proposed plans as they exist at the time. Responsibility for preparation of specific subdivisions of the administrative/logistics plan is assigned to cognizant staff members. Such responsibilities concern the preparation of detailed studies, estimates, and annexes to accompany the plan. Staff members who may assist the S-4 are:

a. Personnel Officer (S-1).--The S-1 prepares the personnel paragraph and coordinates with the S-4 on matters of troop strengths, straggler control, prisoners of war, burials, civilian control, displacement and location of command posts, reports, and other personnel matters which may relate to logistic planning.

b. Intelligence Officer (S-2).--The S-2 provides information concerning enemy dispositions and capabilities which may affect supply, service, and evacuation systems. The S-2 furnishes terrain studies, beach studies, and other planning aids such as maps, charts, and aerial photographs.

c. Operations Officer (S-3).--The S-3 works closely with the S-4 throughout planning. Since the administrative/logistics plan must support the plan of attack, the S-3 furnishes information concerning the details of the plan of attack as soon as they are determined. The plans for embarkation and supply during the landing and assault phase are based upon the plan of attack. The S-3 also furnishes information on civil affairs operations when there is no S-5 assigned.

d. Medical Officer.--The medical officer advises the S-4 on matters concerning medical equipment, medical supplies, and evacuation procedures. He prepares an estimate of the need for and recommends methods for distributing medical supplies, equipment, and personnel. For example, the medical officer determines which medical supplies are needed early in the assault and, based upon this information, he indicates which of the medical supplies are to be included in floating dumps or to be readily available for helicopter pickup and delivery. The medical officer is responsible for the preparation of the medical annex to the administrative/logistics plan.

e. Embarkation Officer.--The regimental embarkation officer advises the S-4 about matters of embarkation and loading. The administrative/logistics plan is closely related to the amount of shipping which is assigned. Therefore, the S-4, in order to obtain the maximum space of supplies and equipment, is assigned by the embarkation officer, who has detailed knowledge of the ship's characteristics.

f. Motor Transport Officer.--The motor transport officer furnishes planning information concerning matters of traffic control, supply routes, priority of movement of vehicles, initial assembly areas ashore, and motor vehicle maintenance. In addition, he provides instructions concerning the operation of motor transport attachments and the procedures and responsibility for collection, repair, and disposition of vehicles. He ensures that all motor vehicle equipment is in a high state of serviceability when embarked, that adequate spare parts are carried by maintenance elements, and that preventive maintenance is reestablished as soon as practicable after landing.

g. Communication Officer.--The communication officer advises the S-4 as to types and amounts of communication-electronics supplies and equipment to be embarked. He supervises communication-electronics supply, including the determination of requirements, procurement, storage, distribution to battalions, and maintenance and repair of communication-electronics equipment. He advises the S-4 on requirements for radio and wire communications to be used for logistic purposes.

Section VII. EMBARKATION

2701. GENERAL

a. The embarkation phase is the period during which the forces assigned to the amphibious task force, together with their equipment and supplies, are embarked in assigned shipping. This phase includes the orderly assembly of troops and material and their loading in a sequence designed to support the landing plan and the scheme of maneuver ashore. Full consideration of the requirements of combat support and service support elements is essential during embarkation and during the ship-to-shore movement.

b. A salient limiting characteristic of an amphibious operation is the necessity of building up combat power ashore from an initial zero to full coordinated striking power. Therefore, a rapid and orderly buildup of troops and materiel is essential to sustain the momentum of the assault. The extent to which this can be accomplished depends in large measure upon the methods employed in loading the amphibious shipping. Adequate embarkation planning will ensure maximum flexibility in loading.

c. See FMFM 4-2, Amphibious Embarkation, for detailed information.

d. The terms most commonly used in planning for embarkation are set forth below:

(1) Embarkation.--Embarkation is the loading of troops with their supplies and equipment into assigned shipping.

(2) Embarkation Area.--An embarkation area is the area ashore, including a group of embarkation points, in which final preparations for embarkation are completed and through which assigned loads for craft and ships are called forward to embark.

(3) Mounting.--Mounting includes all preparations made in areas designated for the purpose in anticipation of an amphibious or airborne operation. It includes the assembly in the mounting area, preparation and maintenance within the mounting area, movement to loading points, and subsequent embarkation into ships, craft, or aircraft, if applicable.

(4) Mounting Area.--Mounting area is a general locality where assigned forces of an amphibious or airborne operation, with their equipment, are assembled, prepared, and loaded in shipping or aircraft preparatory to an assault.

(5) Marshalling.--Marshalling is the process by which units participating in an amphibious or airborne operation group together or assemble when feasible or move to temporary camps in the vicinity of embarkation points, complete preparations for combat, and prepare for loading.

(6) Stage.--Stage is to process, in a specified area, troops which are in transit from one locality to another.

(7) Staging Area.--Staging area is a general locality between the mounting area and the objective of an amphibious or airborne operation,

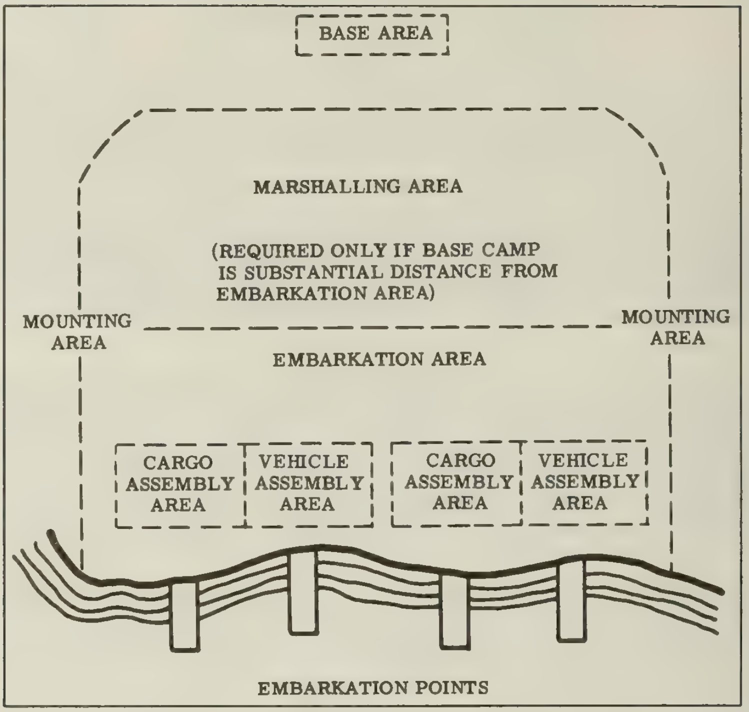


Figure 13.--Schematic Diagram of the Mounting Area, Marshalling Area, Embarkation Area, and Embarkation Points.

through which the expedition or parts thereof pass after mounting for refueling, regrouping of ships, and/or exercise, inspection, and redistribution of troops.

e. See figure 13 for schematic diagram of the embarkation area, mounting area, marshalling area, and embarkation points.

2702. ORGANIZATION FOR EMBARKATION

a. General.--The organization for embarkation consists of a special task organization established by the commander landing force and a specific task organization of Navy forces established by the commander amphibious task force. These task organizations are formed to simplify the planning and execution of embarkation at all levels of command. Upon completion of the embarkation phase, these task organizations, having served their intended purpose, are dissolved.

b. Landing Force Organization for Embarkation.--The organization for embarkation of assault units includes embarkation groups, units, elements, and teams. (See fig. 14.)

(1) Embarkation Group

(a) The embarkation group has as its nucleus a major subdivision of the task organization of the landing force, such as division

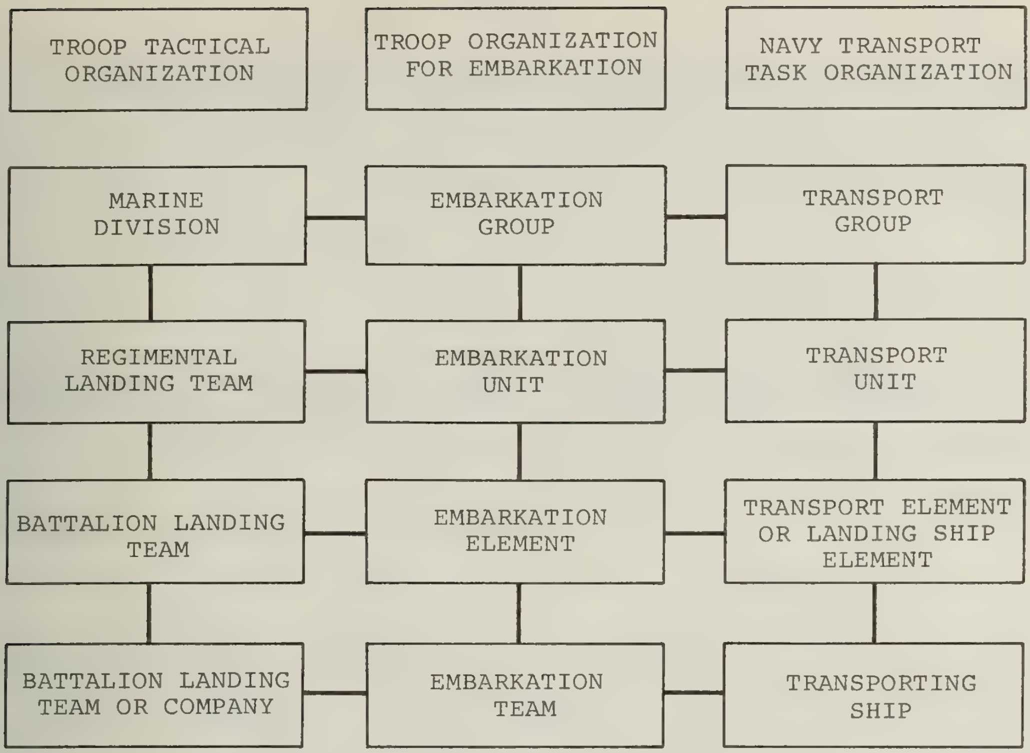


Figure 14.--Organization for Embarkation.

aircraft wing, corps troops, brigade, or other comparable echelon. It is composed of two or more embarkation units, when formed, a combination of units and elements when required, or two or more embarkation teams if elements and units are not formed.

(b) A transport group is the parallel naval organization.

(2) Embarkation Unit

(a) The embarkation unit is the next subordinate embarkation echelon to the embarkation group. It consists of two or more embarkation elements, when formed, or two or more embarkation teams, when elements are not formed. The number of embarkation units formed varies depending primarily on the landing force organization for landing and geographical locations of the embarkation areas and troop units. When a division comprises the embarkation group, an embarkation unit is normally built around each major ground combat organization (infantry regiment or comparable organization), one for ground combat support organizations such as artillery and missiles and one for service support organizations. When a Marine aircraft wing comprises the embarkation group, embarkation units are normally organized at the Marine aircraft group or other comparable aviation unit level. In some instances, it may be necessary to form embarkation units composed of troop units performing special missions in support of the main assault.

(b) While the embarkation team is the basic landing force organization for embarkation, it is at the embarkation unit level that direct control and coordination of activities of both embarkation element (if formed) and team are exercised. The embarkation unit commander, normally the RLT commander, is assigned shipping by the embarkation group commander, and he in turn allocates this shipping directly to embarkation teams. Embarkation units, as organized, must support the organization for landing.

(c) A transport unit is the parallel naval echelon.

(3) Embarkation Element

(a) The embarkation element, when formed, is the next subordinate echelon to the embarkation unit. Its characteristics parallel those of the embarkation unit except that its nucleus is normally the next lower echelon in the chain of command. The embarkation element consists of two or more embarkation teams grouped to conform to organization for landing.

(b) A transport element is the parallel naval echelon.

(4) Embarkation Team

(a) The embarkation team is the basic troop organization for embarkation. It consists of the troops, supplies, and equipment embarked in a single ship. An embarkation team may be composed solely of or be a grouping of ground combat, combat support, service, or aviation units. Regardless of the size or type of ship in which it is to embark, the embarkation team is organized and loaded with meticulous care.

(b) The single ship is the embarkation team's parallel naval echelon.

2703. EMBARKATION AND COMBAT CARGO OFFICERS

a. General.--Marine officers trained in the techniques of planning and supervising loading for an amphibious operation are assigned to landing force organizations, to major amphibious ships, and to naval staffs within the amphibious forces. In the landing force, such officers are called embarkation officers. When assigned to a naval ship or staff for this duty, they are called ship or staff combat cargo officers. The landing force embarkation officers and ship's combat cargo officers advise and assist their respective commanders in embarkation planning and in supervising the execution of approved plans. It is essential that landing force embarkation officers and ship's combat cargo officers maintain close liaison throughout the planning and embarkation phase. In some cases, subordinate elements of an RLT may be embarked on a ship having no combat cargo officer. When this is the case, a Navy officer performs the duties of ship's combat cargo officer.

b. Required Knowledge.--In order to efficiently carry out their functions, embarkation officers and combat cargo officers must be thoroughly familiar with the following:

(1) Naval customs and terminology.

(2) Standard ship organization.

(3) Applicable tables of organization.

(4) Landing force organization.

(5) Principles and techniques for combat loading of amphibious ships.

(6) Standing operating procedures for preparing supplies and equipment for loading, including packing, crating, marking, and waterproofing.

(7) Characteristics of nuclear weapons for loading purposes, including packaging, handling, stowing, and security requirements.

(8) Preparation of ship's loading characteristics pamphlet.

(9) Characteristics of amphibious ships, landing craft, assault amphibious vehicles, and helicopters.

c. Unit Embarkation Officer (RLT)

(1) Heads the embarkation section on the special staff of the RLT commander in his assignment as the embarkation unit commander.

(2) Prepares, in conjunction with the commanders and staff officers of the RLT, the organization for embarkation and assignment to shipping table and submits the table to the RLT commander for his approval.

(3) Assigns and schedules the use of cargo assembly areas, vehicle staging areas, and embarktion points to subordinate embarkation elements or teams. Assignments are based on marshalling area and embarkation area assignments made by the embarkation group commander.

(4) Prepares complete unit embarkation plan under the cognizance of the RLT S-4 for approval by the RLT commander.

(5) Provides guidance and assistance to element or team embarkation officers in the preparation of loading plans.

(6) Coordinates all loading activities of subordinate embarkation echelons.

(7) Functions, when so directed, as a member of the TAC-LOG group on a designated ship during debarkation.

d. Transport Unit Combat Cargo Officer (Navy)

(1) Advises and assists his commander on matters concerning landing force embarkation, cargo stowage, and unloading of ships.

(2) Acts as liaison officer between his commander and the corresponding troop commander.

(3) Maintains a file of ship's loading characteristics pamphlets of all amphibious ships so that he may advise on capabilities of these ships.

(4) Advises and coordinates the activities of ship's combat cargo officers.

(5) Collects the loading plans for ships of the transport unit.

(6) Reviews loading and unloading plans.

(7) Maintains statistical records of ship cargo handling characteristics and performance so he can intelligently advise or recommend the allocation of landing force units and cargo.

(8) During embarkation and unloading, the transport unit combat cargo officer compiles required periodic reports of progress for transmission to higher authority.

e. Team Embarkation Officer.--The team embarkation officer is normally selected on the basis of previous training in the field of embarkation. He is expected to possess the knowledge outlined in subparagraph 2703b. For detailed information concerning his duties during the embarkation phase, see FMFM 4-2, Amphibious Embarkation, and FMFM 6-3, Marine Infantry Battalion.

f. Ship's Combat Cargo Officer.--Marine officers performing in assignments as ship's combat cargo officers should have had embarkation training.

Section VIII. REHEARSAL AND MOVEMENT TO THE AMPHIBIOUS OBJECTIVE AREA

2801. REHEARSAL

a. General

(1) The rehearsal is defined as the period during which the prospective operation is rehearsed for the purpose of:

(a) Testing adequacy of plans, the timing of detailed operations, and the combat readiness of participating forces.

(b) Ensuring that all echelons are familiar with plans.

(c) Testing communications.

(2) Rehearsals are executed in accordance with a plan which approximates the plan for the specific operation. Its participants should include all units which are to take part in the operation.

(3) The decision to conduct an integrated rehearsal involving the major elements of the amphibious task force rests with the CATF. This decision is made early in the planning phase. In the event that integrated rehearsals with naval elements are not possible, the commander landing force usually requires a staff rehearsal as a minimum. This is done to check the communication system and staff functioning of all assault elements, combat support, and combat service support units. Integrated rehearsals involving all troops are desirable. The echelonment of units into the objective area or other compelling reasons may dictate that subordinate assault elements (RLT/BLT) conduct independent or separate rehearsals.

b. Factors Affecting the Rehearsal of the RLT

(1) Although occasions will occur in which the amphibious task force will be unable to conduct an integrated rehearsal, subordinate elements of the landing force, except under unusual circumstances, invariably conduct integrated rehearsals. In instances when amphibious shipping is not immediately available, the RLT can conduct its own rehearsals with certain artificialities, while ashore, including a simulated ship-to-shore movement.

(2) In any event, careful attention is given to the selection of the rehearsal area in order to select the area most resembling the terrain in the actual objective area. Major obstacles to the assault inland which are known to exist in the actual objective area such as swamps, rivers, or steep land masses are duplicated to the extent possible in the rehearsal area. Other considerations include the time available for rehearsal, security, location of the rehearsal area with respect to the objective area, the location of embarkation points, and climatic conditions. An area where live ammunition can be fired is most desirable.

(3) The rehearsal is conducted with the equipment and types of supplies which are to be used in the operation. However, essential equipment which cannot be immediately replaced may be withheld from the

rehearsal. This is especially true for externally loaded equipment for helicopter delivery. Definite plans must provide for the immediate replacement of equipment and supplies expended during the rehearsal.

c. Rehearsal Planning

(1) Responsibility for the preparation of rehearsal plans is the same as for the preparation of the actual operation plan. Because of the differences in terrain, weather conditions, and other factors, the plan may require some modification to meet the conditions in the rehearsal area. It is particularly important that these modifications to the actual supporting plans and annexes be kept to a minimum. To serve its purpose, the rehearsal plan provides for realistic testing of plans for the pending operation.

(2) The scope and number of rehearsals, without naval participation but including tests of the ship-to-shore movement, will depend upon guidance from higher echelon and the desires of the RLT commander. The RLT commander may require that each battalion conduct its own rehearsal, including both staff and integrated rehearsals culminating in an RLT integrated rehearsal, or any combination of staff and integrated rehearsals. In the conduct of rehearsals without naval participation, troops are organized into boat and/or helicopter teams, scheduled waves are formed, a line of departure is established, and movement to the simulated beach or landing zones is executed in accordance with actual landing plans. Vehicles and equipment are phased into the problem, as appropriate. Provisions are made to include vehicles, radio equipment, and umpire control personnel to represent higher echelon and such external elements as naval gunfire, close air support, artillery, TAC-LOG groups, and other elements as a part of the exercise. These personnel can be obtained from organic RLT units when a single BLT conducts an integrated rehearsal. When the RLT conducts an integrated rehearsal, such personnel and equipment are usually provided from external sources.

d. Security

(1) Because of the similarity between the rehearsal and the actual operation, strict security measures are enforced during the rehearsals. The reconnaissance, selection, and arrangement for the use of areas in which rehearsals are to be held must be carefully conducted. Deceptive measures may be necessary to ensure the security of the rehearsal.

(2) Unauthorized observation by personnel who are not a part of the amphibious task force and unauthorized communications by personnel of the rehearsal force with external agencies is prevented. Quarantine of troops and ships and establishment of security perimeter patrols around the rehearsal area, both at sea and ashore, are primary means of achieving security.

(3) Rehearsal plans should be thoroughly understood by personnel prior to the rehearsal.

e. Critique and Evaluation.--Following the rehearsal, a critique is held to discuss mistakes made in the rehearsal, flaws in the operation plans, and remedial action to be taken. Primary consideration is given to an evaluation of communications, special techniques, and time and space factors.

f. Reembarkation.--Some of the problems which may be encountered in reembarking into amphibious shipping are listed below:

(1) Equipment subjected to salt water must be thoroughly cleaned.

(2) Radios require a careful check.

(3) Loading plans must be changed to reflect changes resulting from the rehearsal.

2802. MOVEMENT TO THE AMPHIBIOUS OBJECTIVE AREA

a. General

(1) Movement of the embarkation unit/RLT to the AOA includes departure of ships of the amphibious task force from embarkation points in the embarkation area, the passage at sea, and the approach and arrival in the objective area. The passage at sea may be without a stop, or it may be interrupted for rehearsals, for stops in staging areas for logistic reasons, and for stops at regulating points. Changes in the movement may be necessitated by adverse weather or other unfavorable situations which result in postponements.

(2) The RLT commander can do little to influence the forthcoming operation during the movement phase. The Navy organization is responsible to transport the landing force to the landing beaches. The RLT commander and his staff continue planning based upon information from higher headquarters. He disseminates any changes in plans, the exact time of H-hour and D-day, and any new intelligence information having an affect on the RLT and its subordinate units.

(3) Since combat operations may be preceded by several weeks aboard ship, it is essential that the practical aspects of troop life aboard ship be conducted in a routine and efficient manner. Except for general instructions, the RLT commander permits BLT commanders to establish shipboard routine. This is accomplished by cooperation between the commanding officer of the ship and the commanding officer of troops. In addition to preparation for debarkation, other major requirements of embarked troops while aboard ship include the following:

(a) Physical conditioning.

(b) Maintenance of materiel.

(4) For detailed information concerning troop life and training aboard ship, see FMFM 3-2, Amphibious Training, and FMFM 4-2, Amphibious Embarkation.

b. Command Relationships.--A commanding officer of troops for each ship is designated during the planning phase by the next senior troop echelon. The senior troop commander of the organizations embarked on each ship is normally the designated commanding officer of troops. Cooperation is practiced between the commanding officers of ships and commanding officers of troops and extends to the personnel under their respective command. Troop personnel are made cognizant of the responsibility imposed upon the commanding officer of the ship and the commanding officer of troops.

Section IX. SHIP-TO-SHORE MOVEMENT

2901. GENERAL

a. To a major degree, detailed ship-to-shore planning at the RLT level is done by the BLT's. The RLT consolidates vital requirements and recommendations of the BLT's and submits them to higher headquarters. Once final allocation of means has been assigned, detailed plans of the BLT's and their naval counterparts are prepared, submitted for consolidation by the RLT, and forwarded to higher headquarters. Once the higher echelon landing plan annex is published, the RLT commander extracts pertinent instructions to be published in the RLT plan annex. The plans for the ship-to-shore movement must reflect full consideration of the requirements of all combat support and service support elements.

b. Operational considerations should include:

(1) Characteristics of the ship-to-shore movement.

(2) Troop organization.

(3) Navy organization.

(a) Number of landing ships, craft, assault amphibious vehicles, etc.

(b) Navy control group.

(4) TAC-LOG groups.

(5) Types of movement and control.

(6) Landing categories.

(7) Serial numbers.

(8) Planning.

(a) Scheme of maneuver.

(b) Fire support.

(c) Embarkation.

(d) Logistic support.

(e) Communications.

(f) Intelligence.

(g) Nuclear defense.

(h) Naval planning.

(9) Landing plan.

(10) Landing documents for the waterborne assault.

(11) Considerations for the "over-the-horizon" launch of landing force.

c. For detailed information see FMFM 5-3, Assault Support; FMFM 6-3, Marine Infantry Battalion; FMFM 9-2, Amphibious Vehicles; and NWP 22-3, Ship-to-Shore Movement.

2902. SHIP-TO-SHORE DISPLACEMENT OF THE RLT COMMAND POST

a. Organization.--The command group may be divided and embarked in separate ships for movement to the objective area. The RLT commander's group and the executive officer's group are organized to permit orderly displacement of the command post from ship-to-shore. Staff officers, less those assigned to the TAC-LOG group, are divided between groups so that either group is capable of commanding the RLT for limited periods of time. Each group contains sufficient radio equipment and the necessary operators to maintain communications en route and rapidly establish communications ashore.

b. Sequence.--An advance party to reconnoiter the site and install communications in the command post ashore is organized from the group embarked with the RLT commander. The sequence of events in the ship-to-shore movement generally follows the pattern below:

(1) The advance party lands with final elements of the assault BLT's to reconnoiter the prospective command post site and commence preparations for its occupancy.

(2) The RLT commander and the remainder of the command group embarked with him land and occupy the command post ashore.

(3) On the order of the RLT commander, the executive officer lands with his echelon of the headquarters and joins the command post.

c. Landing.--The RLT commander's group may be embarked in helicopters or landing craft. When helicopters are used, they proceed directly to the designated landing zone. In a waterborne operation, the RLT commander's group normally embarks in landing craft and proceeds to the primary control vessel before the first scheduled wave is dispatched. The group may board the control vessel to establish personal liaison and obtain a better location for observation and communications. When the RLT commander decides to land his group, it either reembarks in landing craft or transfers to assault amphibious vehicles and proceeds to the beach. This decision is based on the tactical situation ashore. The executive officer's group lands as directed by the commander, but it normally remains aboard a transport or afloat in a freeboat until the RLT commander's group is established ashore.

d. Naval Gunfire Liaison.--The RLT commander's group normally includes the naval gunfire liaison officer with radio equipment and operators to guard the division naval gunfire support net. This places the naval gunfire liaison officer in a position to take immediate action as problems arise. For example, if a BLT requires more naval gunfire support than can be provided by its direct support ship, the naval gunfire liaison officer may, with approval of the RLT commander, assign the RLT general support ship to the BLT for specific fire missions.

e. Air Liaison.--The air liaison officer normally accompanies the RLT commander during the ship-to-shore movement. The air liaison group includes sufficient radio equipment and operators to guard the tactical air request net and the tactical air direction net. If the RLT commander requires additional close air support for his unit during the ship-to-shore movement, the air liaison officer requests support from the tactical air control center over the tactical air request net if he is in a position to do so. Otherwise, he passes control of the strike to the forward air controller of a subordinate BLT located in an advantageous site or to an airborne tactical air coordinator.

f. Artillery Liaison.--A liaison party from the artillery battalion normally accompanies the command group in the ship-to-shore movement. When space aboard the commander's landing craft is limited, the liaison party is split between the commander's and executive officer's groups.

2903. HELICOPTERBORNE SHIP-TO-SHORE MOVEMENT

a. The size and composition of a helicopterborne force in an amphibious operation are determined on the basis of many variable factors. Generally, a helicopterborne force conducting an amphibious assault operates in conjunction with a surface assault.

b. Basic operational considerations include:

(1) Plan of attack.

(2) Ship-to-shore sequence.

(a) Landing plan.

(b) Flight routes.

(c) Flight formation.

(d) Enplanement procedures.

(3) Task organization.

(4) Command relationships.

(5) Flight regulations.

(6) Unit coordination.

(7) Control agencies and functions.

(8) Communications.

(9) Preparation.

(10) Landing documents required.

c. For detailed guidance concerning the helicopterborne ship-to-shore movement, see FMFM 5-3, Assault Support, and NWP 22-3, Ship-to-Shore Movement.

Section X. CONDUCT OF THE ASSAULT AND INITIAL OPERATIONS ASHORE

21001. GENERAL

The assault phase is that period between the arrival of the major assault forces of the amphibious task force in the objective area and the accomplishment of the amphibious task force mission. It may encompass the following:

a. Preparation by naval gunfire and air bombardment.

b. Ship-to-shore movement of the landing force by helicopters, landing craft, assault amphibious vehicles, and landing ships.

c. Landings in landing zones and on beaches by the assault elements of the landing force.

d. Operations inland to effect linkup between waterborne and helicopterborne forces and to seize the beachhead.

e. Provisions for air and naval gunfire support of attack throughout the assault.

f. Provisions for logistic support throughout the assault.

g. Landing of remaining landing force elements for the conduct of such operations as may be required to complete the accomplishment of the amphibious task force mission.

21002. FINAL PREPARATION OF THE LANDING AREA

Final preparation of the landing area includes:

a. Naval minesweeping operations with special emphasis on ensuring the clearance of mines in the transport and fire support areas and in the sea approaches to the landing beaches.

b. Naval underwater demolition team operations to verify available information, obtain last-minute information, and assist the assault landings by performance of as many of the following tasks as are assigned:

(1) Hydrographic reconnaissance of the landing beaches and seaward approaches thereto.

(2) Demolition of natural and manmade obstacles.

(3) Sea mine clearance.

(4) Locating, improving, and marking usable channels.

(5) Providing data obtained during prelanding operations to the landing force when of importance or in response to specific requests for information.

(6) Guiding leading waves of assault craft to landing beaches.

c. Air operations in preparation for the landings. (See par. 2407.)

(1) Air attack measures include preplanned airstrikes against enemy defensive installations on and in the vicinity of the landing beaches and zones. In addition, strike aircraft are provided for attack of targets of opportunity. Immediately prior to H-hour, strike aircraft intensify neutralization attacks in the immediate vicinity of landing beaches, helicopter approach and retirement lanes, and the landing zones. Schedule alterations are made to accommodate any changes in H-hour.

(2) Air escort missions are conducted to neutralize enemy fires endangering friendly helicopters.

(3) Miscellaneous air operations conducted during this period may include tactical air observation, reconnaissance, air spot for naval gunfire and artillery, smoke missions, search and rescue, and electronic countermeasures.

d. Naval gunfire, which is intensified as H-hour approaches. (See par. 2405.)

e. Artillery fire, when artillery has been emplaced on offshore islands or promontories during preassault operations.

21003. SHIP-TO-SHORE MOVEMENT

a. As the amphibious task force assault shipping begins the final approach to assigned positions for the assault, individual ships prepare for the debarkation of the embarked troops, equipment, and supplies in accordance with previously prepared plans. The timing of loading operations in preparation for the ship-to-shore movement and for the ship-to-shore movement itself depend upon the time designated for H-hour. Therefore, all elements involved in the ship-to-shore movement must be prepared to modify plans on short notice to conform to changes in H-hour.

b. Personnel and agencies responsible for control during the ship-to-shore movement make final preparations. Personnel involved in control of surface movement means are transferred from transport ships of the control group which then take stations as planned. Such transfers usually involve designated naval control personnel together with landing force representatives of the TAC-LOG group. Agencies to control helicopter movements also take assigned stations and begin operations as required to meet the time schedule for initial landings.

c. Debarkation of the initial assault elements of the landing force which involves loading of personnel, equipment, and supplies into landing craft, assault amphibious vehicles, and helicopters is accomplished in accordance with a strict time schedule. Timing for debarkation is based on the scheduled time of landing in relation to H-hour and takes into account the time necessary to load and move from the ship to landing beach or landing zone. Preparations are made for debarking on-call and nonscheduled units and for dispatching these units when required.

21004. INITIATION OF THE ASSAULT

Prior to the arrival of the main body of the amphibious task force in the landing area(s), the decision is made to execute either the primary plan or one of the alternate plans for the assault. After arrival of assault shipping in assigned sea areas, H-hour is confirmed as soon as practicable or changed as necessary by the amphibious task force commander. The amphibious task force commander initiates the assault landings by prearranged signal.

21005. INITIAL OPERATIONS ASHORE

Once established ashore, tactical operations of an assault RLT assume an ever-increasing resemblance to land combat. During the early stages of the assault, however, significant differences exist.

a. The freedom of action which the RLT commander can exercise in deviating from the planned scheme of maneuver is more drastically curtailed than in land warfare. The necessity of building up combat power ashore from an initial zero to full coordinated striking power in the drive to rapidly complete the ship-to-shore movement of all troops may preclude interruptions of the attack for the purpose of formulating a revised scheme of maneuver. Aggressiveness is essential.

b. Reserves may not be as readily available as in land warfare. This is particularly true during the assault since the reserve may still be afloat.

c. Air support and naval gunfire, rather than artillery, are the principle supporting arms employed in the early action. During the period necessary for landing and emplacing supporting ground weapons ashore, difficulties such as limited ammunition supplies may vitally affect their support capabilities.

21006. RLT OBJECTIVES

The RLT commander, in the development of his scheme of maneuver, selects objectives which will ensure the accomplishment of his assigned mission. He may designate successive objectives or phaselines to coordinate the advance of assault BLT's from the beaches to the RLT objective and/or a part of the beachhead line. The use of extensive control measures will provide coordination during necessary reorganization, maneuver of units, and fire support. These coordination measures should never interfere with rapid and aggressive movement toward assigned objectives.

21007. MAIN AND SUPPORTING ATTACKS

In the amphibious operation, planning main or supporting attacks is seldom possible before landing and development of the situation. The RLT commander is rarely justified in designating a supporting attack. The means normally used to develop the main attack in the amphibious assault is holding the reserve readily available to exploit enemy weaknesses. Units landed on adjacent beaches may strengthen the initial assault if they are capable of mutual support. If this is not initially practicable, a direction of attack is designated which will make assault BLT's converge to reach positions which are within supporting distances as soon as possible. However, this may not always be possible since, in some instances, assault BLT's are separated by extensive distances.

21008. RLT RESERVE

a. In an amphibious assault, it is essential that a substantial force be held in mobile reserve. To provide for possible communication difficulties, definite plans of action are given to the reserve before embarkation. These plans may provide missions for the RLT reserve to:

(1) Exploit success of the assault BLT's.

(2) Support assault BLT's against expected counterattack.

(3) Reinforce and continue the momentum of attack in the zone of action of the assault BLT which has established the deepest beachhead.

(4) Occupy an assembly area within the RLT beachhead.

(5) Change the RLT direction of attack by attacking to a flank.

b. RLT plans which have been prepared to cover all probable landing areas and situations require that the reserve BLT commander prepare corresponding alternate plans. The execution of these plans dictates that arrangements be completed for prompt transmission of orders from the BLT commander to the reserve BLT.

21009. LOGISTIC SUPPORT

a. General.--The most significant influence on logistic planning for the amphibious operation is the necessity for the forces afloat to provide continuing and coordinated logistic and administrative support to the landing force during a period in which its system is primarily ship-based. An assault RLT requires a greater than normal degree of self-sufficiency pending establishment of the support system ashore. As the amphibious operation progresses, logistic capabilities ashore are developed from zero to the desired level of logistic support. The control of support areas is increasingly centralized as successively higher command and control agencies are established ashore. The shore party group is responsible for the initial support of the assault RLT.

b. Shore Party Group

(1) A shore party group is normally assigned to the beaches over which the RLT lands. It consists of a group headquarters and two or more shore party teams. The exact number of teams is contingent upon the landing plan. The command, administrative, and communication sections are embarked with the RLT headquarters. Elements of the shore party group headquarters may, if desired, transfer to the primary control ships before going ashore. They monitor the landing and establishment of shore party teams ashore from this vantage point. Other elements of the group headquarters normally are embarked in other shipping of the embarkation group. These elements consist of the motor transport and military police sections under the command of the shore party group executive officer.

(2) Deployment of the shore party team ashore is discussed in detail in FMFM 4-3, Landing Support Operations, and FMFM 6-3, Marine Infantry Battalion. The shore party group commander coordinates the landing and consolidation of shore party activities with the RLT commander's operation. Operations of the shore party group headquarters vary to some extent according to the plan for landing and the scheme of maneuver ashore.

Section XI. AMPHIBIOUS RAIDS

21101. DEFINITION

An amphibious raid is a landing from the sea on a hostile shore involving swift incursion into or temporary occupancy of an objective followed by a planned withdrawal.

21102. PURPOSE

Amphibious raids are conducted for such purposes as inflicting loss or damage, securing information, creating a diversion, and capturing or evacuating individuals and materiel.

21103. ORGANIZATION AND COMMAND RELATIONSHIPS

The principles of organization and of command relationships, stated in chapter 2, are applicable for amphibious raids. However, the wide variation in the purpose of raiding operations and the consequent variation in composition of the raiding force and associated naval forces, requires a full description of the precise command arrangements which apply in each case.

21104. PLANNING CONSIDERATIONS

a. General.--An amphibious raid is planned and executed in the same general manner as a landing for the purpose of capturing a position ashore, except that specific provision is invariably made for withdrawal. Because of its lesser size and limited purpose, the plans for a raid may embody the following variations:

(1) It may be unnecessary for the selected beaches or landing zones to meet all the requirements of an amphibious assault. In small scale raids they are chosen from the point of view of insuring tactical surprise.

(2) The limited duration of a raid may make it possible to conduct the operation without local naval and air superiority.

(3) Final deployment of the raiding force may not be required until it reaches the objective ashore.

(4) The limited objective and short duration of the amphibious raid will usually simplify logistic support requirements.

(5) Through prearrangement, it may be possible for a small-scale raid to be executed with very limited communications means.

b. Detailed Planning Considerations.--The following considerations are of basic importance in planning a raid:

(1) Surprise is an essential ingredient in the success of an amphibious raid and offsets, in large measure, the lack of logistic and fire support normally associated with amphibious operations.

(2) Security during the planning and execution of a raid must receive particular attention, to include full exploitation of deceptive measures. Such deception measures may take the form of elaborate cover plans, or may be confined to simple ruses.

(3) The following factors will influence the choice of landing areas for the raiding force:

(a) Enemy dispositions.

(b) Sea approaches.

(c) Hydrographic and beach characteristics.

(d) Availability of helicopter landing zones.

(e) Avenues of approach to the objective of the raiding force.

(4) The time which it is estimated the raiding force will have to be ashore may influence the choice of H-hour and, consequently, the conditions of visibility under which the raiding force may be landed. It will likewise affect the scope of logistic arrangements which must be made.

(5) The purpose of the raid, including its relation to other concurrent or imminent operations which it may support, will influence the selection of D-day for the raid. In addition, these same factors may affect the availability of shipping, aircraft, logistics, and/or fire support means for the raid.

(6) The planning for the embarkation of forces assigned to participate in an amphibious raid is similar to that required in preparation for the amphibious assault, subject to the necessary increase in security measures required.

(7) Fire support planning is similar to that for an amphibious assault, except that, where surprise is a major factor, supporting fires usually are withheld, and radio silence maintained until surprise is lost.

(8) Planning for the ship-to-shore movement is generally similar to that for an amphibious assault, except that the movement may, in some instances, be made entirely by helicopter.

(9) The withdrawal must be planned in detail, to include alternate provision, as to both time and place, for reembarkation. If the landing point and withdrawal point are not the same, positive means of location and identification of the latter must be established. Special situations may permit planning for the withdrawal of the raiding force directly into friendly territory without reembarkation. Withdrawal by air may be possible when the area of the raid includes a usable airfield, terrain suitable for landing helicopters, or water suitable for landing seaplanes.

21105. REHEARSALS

Thorough, integrated rehearsal is requisite to precision and speed in execution of a raid. All participating forces must be drilled in every detail of debarkation, movement ashore, operations ashore, withdrawal, and reembarkation. Rehearsals assume even greater importance in preparation for amphibious raids than for other lesser included types of amphibious operations. Timing, so vitally important in all amphibious raids, cannot be accurately estimated or adhered to without adequate rehearsals of the entire raiding force.

Section XII. AMPHIBIOUS DEMONSTRATION

21201. DEFINITION AND PURPOSE

a. An amphibious demonstration is a lesser included type of amphibious operation conducted for the purpose of deceiving the enemy by a show of force with the expectation of deluding the enemy into a course of action unfavorable to him. The demonstration is a feint at landing involving an approach to a beach or landing zone.

b. It is intended to confuse the defender as to the time, place, or strength of the main attack, and normally includes preparatory and supporting fires.

21202. DEMONSTRATIONS WITHIN THE OBJECTIVE AREA

An amphibious demonstration may be conducted within the objective area by a portion of the amphibious task force when it is intended to influence enemy action within that area. It may be intended to cause the enemy to employ his reserves improperly, to disclose weapon positions by inducing him to fire prematurely, to distract his attention, to place an early burden on his communication system, to precipitate a general air or naval engagement, or to harass him. The decision to conduct such a demonstration is made during planning by the commander amphibious task force, following consultation with the commander landing force and the Air Force task group commander, when appropriate.

21203. DEMONSTRATIONS OUTSIDE THE OBJECTIVE AREA

An amphibious demonstration may be conducted outside the objective area to divert or immobilize enemy strategic reserves or other forces capable of affecting the amphibious operation, to distract hostile attention from such an operation, or to precipitate a general air or naval engagement. Such a demonstration may be executed by a separate amphibious task force. The time and place of the demonstration is decided by higher authority, on the basis of the recommendations of the commander of the amphibious task force whose operations it is to support.

21204. PLANNING CONSIDERATIONS

In planning amphibious demonstrations within the objective area, consideration must be given to the following:

a. Location.--The demonstration area must be near enough to the main landing area to permit subsequent employment of the demonstration force in accordance with the tactical plan. On the other hand, it should be sufficiently separated from the main landing area to avoid interference with the main landing, and to ensure that the enemy will be materially delayed in correcting any improper disposition of his forces. The demonstration area must be suitable for an actual landing, for only in such an area can the threat of landing be plausible. The demonstration area should also be important to the enemy, since only a threat to an area of value will induce the enemy to react. An alternate landing area will often prove suitable for demonstration purposes. If the demonstration is intended solely to cause the enemy to disclose his positions by opening fire prematurely, or to harass him, it may be conducted in the main landing area prior to D-day.

b. Timing.--The time of a demonstration conducted in support of a main landing is based on the time of the supported landing.

(1) Prior to Main Landing.--A demonstration may be conducted prior to the main landing if the purpose is:

(a) To draw enemy forces to the threatened area and away from the area of the main landing.

(b) To cause the enemy to disclose his positions.

(c) To provide protracted and systematic harassment.

(d) To divert the attention of the enemy from the main landing.

(e) To cause a premature commitment of enemy forces.

(2) Simultaneously with Main Landing.--A demonstration may commence at the same time as the main landing if it is desired:

(a) To prevent redeployment of enemy forces.

(b) To deceive the enemy as to the location of the main attack.

(3) Subsequent to Main Landing.--A demonstration may be conducted subsequent to the main landing if the desired effect is to divert enemy forces or fire from the point of the initial landing. Successive demonstrations may be executed at a number of points after the main landing.

c. Forces.--The demonstration force must be of such composition and size as to cause the desired reaction. When the demonstration force is constituted from within the amphibious task force, the landing force reserve and the shipping in which it is embarked may be employed if the presence of the reserve is not required in the immediate area of the main landing. On completion of the demonstration, the demonstration force is dissolved, and its elements are reassigned in accordance with the operation order or plan.

d. Supporting Arms.--The demonstration force should execute supporting fires of a nature and scope which ensures credibility. Factors which may serve to limit the availability of supporting fires are availability of fire support ships, aircraft, and ammunition supply.

e. Rehearsals.--Sufficient rehearsals are held to ensure that the demonstration will be realistic.

21205. EXECUTION

a. The effectiveness of a demonstration increases in direct proportion to the degree of realism involved in its execution. It should be neither underplayed nor overplayed, since to do either may destroy the effect sought. It is important that the enemy receive a convincing impression of preparations for a landing. All visible, audible, and electronic aspects of the demonstration must appear to be authentic. A demonstration normally includes the approach of the demonstration forces to the demonstration area, at least a part of the ship-to-shore movement and the employment of supporting fires. A brief but intense preliminary bombardment will usually be more effective than deliberate harassing fire over longer periods of time. A communication deception plan should be used. Underwater demolition teams and tactical deception units may be employed.

b. The demonstration must be prolonged a sufficient period of time to allow the enemy to react to it. The movement of waves toward the beach or landing zones is conducted as a normal ship-to-shore movement, except that boat waves do not actually beach and helicopter waves do not land. Empty landing craft maintain sufficient distance from the beach so as to preclude close enemy observation. At a prearranged time or distance from the beach, or landing zone, or upon signal, the boat waves and/or helicopter waves withdraw. Smoke may be used to conceal the withdrawal.

Section XIII. AMPHIBIOUS WITHDRAWALS

21301. GENERAL

An amphibious withdrawal is a withdrawal of forces by sea in naval ships or craft from a hostile shore.

21302. PURPOSE

The purpose of the amphibious withdrawal is to disengage forces for employment elsewhere.

21303. SCOPE

The amphibious withdrawal operation extends from initial measures in defense of the embarkation area, in conformity with the requirements imposed by the enemy situation, to the embarkation of the final elements of the force being withdrawn.

21304. ORGANIZATION AND COMMAND RELATIONSHIPS

The organization of forces, the responsibilities for accomplishment of tasks, and the command relationships during an amphibious withdrawal are essentially the same as those in the objective area during the assault phase of an amphibious operation. Such variations in responsibility in command authority as are required by the individual situation must be announced in the directive to undertake the operation.

21305. CHARACTERISTICS

While sharing the basic maritime features of the amphibious assault, in that it depends upon the sea for support and transportation, the amphibious withdrawal embraces the following distinguishing characteristics:

a. Except in the case of withdrawal associated with amphibious raids, planning processes will usually be abridged.

b. Where enemy action against the landing force is substantial or when the requirement for the forces elsewhere is great, the time available for execution of the withdrawal will be brief.

c. Facilities for embarkation and loading may be extremely restricted, with consequent intensification of logistic problems.

d. Where the withdrawal is conducted in the face of strong enemy action, the requirements for security are of paramount importance.

e. All of the requisite fire support means may not be available.

f. Means for controlling the withdrawal may be limited.

g. The operation may, of necessity, be conducted under adverse conditions of weather, terrain, and hydrography.

h. Circumstances may render it advisable to conduct the operation under conditions of limited visibility.

21306. EXECUTION

Without respect to its specific purpose, the amphibious withdrawal will be executed in accordance with the following general sequence of steps:

a. Defense, as required by the enemy situation, by air, naval, and ground covering forces accompanied by the embarkation of personnel, supplies, and equipment which are not required for support of operations ashore.

b. Progressive reduction of troop and material strength ashore under the protection of naval and ground covering forces. Depending on limitation of afloat cargo capacity and/or loading time, all usable military material is either evacuated or destroyed. During this phase specific provisions are made for the evacuation of patients.

c. Withdrawal of the ground covering force, with priority to heavy elements such as artillery and tanks, usually under cover of darkness, and supported as necessary, by air and naval fire support means.

21307. SUPPORTING ARMS

The defense of an embarkation area on a hostile shore requires the same close coordinated employment of all arms--artillery, naval gunfire and air--as that required for an assault landing. The procedure used in the coordination is essentially the same in both cases. The primary difference is that, in the assault, supporting arms and control facilities are progressively built up ashore, whereas, in a withdrawal from a hostile shore, the arms and control facilities are progressively decreased ashore until eventually all their functions are performed by units afloat or airborne. Isolation of the beach, if requisite supporting arms are available, may be more readily achieved than during the assault, since enemy troop and weapon dispositions cannot be preplanned or emplaced due to the transitory nature of the operation.

21308. EMBARKATION PROCEDURES

a. Planning for embarkation of forces, incident to an amphibious withdrawal, is conducted in accordance with normal planning procedures if the embarkation is preparatory to the employment of the force in an amphibious operation. In case the embarkation is incident to a decision to terminate operations on shore and to redeploy troops to a designated base or base areas, the planning procedures are abridged as necessary to conform to time requirements.

b. Combat loading will be employed in embarkation in preparation for an amphibious operation. Embarkation for movement to base areas will normally employ administrative loading.

c. The initial size of the embarkation area depends upon several factors, such as:

(1) Terrain essential for defense in the event the embarkation is accomplished under enemy pressure.

(2) Number of personnel and amount of equipment and supplies to be embarked.

CHAPTER 3

OPERATIONS ASHORE

Section I. INTRODUCTION

3101. GENERAL

Tactical employment of the regiment as discussed herein can apply to any operational condition or environment. Employment in certain environments requires augmentation and adequate equipment to meet peculiar operational conditions of the area. The regiment must be prepared to operate effectively in any geographical location and under all conditions of warfare including situations short of war, and limited and general wars.

3102. MISSION OF THE INFANTRY

The mission of the infantry in offensive combat is to locate, close with, and destroy or capture the enemy. The infantry accomplishes its mission by combining fire, maneuver, and shock action, which is a combination of fire and maneuver. By fire, it inflicts losses on the enemy and neutralizes his combat power; by maneuver, it closes with the enemy and makes its fire more effective; and by shock action, it completes the destruction of the enemy in close combat. The mission of the infantry in defensive combat is, with the support of other arms, to repulse or destroy the enemy at a distance from the defensive position, to repel his assault by close combat if he reaches the defensive position, and to destroy or eject him by counterattack if he has made a penetration of the defensive position.

Section II. TROOP MOVEMENT

3201. GENERAL

a. Troop movements are classified as either administrative or tactical. Administrative movement is used when the probability of contact with the enemy is remote. Primary emphasis is placed on the most efficient use of transportation. Tactical movement is used when contact with the enemy is probable and primary emphasis is placed on readiness to enter combat.

b. Regimental movements are normally movements of individual battalions performed either simultaneously or in sequence, coordinated by the regimental commander. The battalions often employ various methods of movement.

c. The regiment must be able to move by helicopter, truck, assault amphibious vehicle, fixed-wing aircraft, surface and subsurface shipping, rail, or any combination of these methods, as well as by foot marches.

d. Detailed planning is necessary to ensure that all elements of the regiment reach their destination at the proper time and in condition to accomplish their missions. The use of SOP's will facilitate the planning of movements. Training programs should include practice in planning, loading, and conducting all types of movements. This practice should be integrated with other training at every opportunity.

3202. METHODS OF MOVEMENT

a. Foot Movement

(1) Regardless of other means of mobility, infantry units must ultimately close with and fight the enemy on foot. Tactical success may depend on the marching capability of the troops.

(2) Forced marches may impair the fighting capability of a unit unless they are properly planned and progressive training has been accomplished. (See FM 21-18, Foot Marches, and FM 21-20, Physical Readiness Training.)

b. Vehicular Movement.--External support is required in order to execute a regimental motor march. Details of planning and executing marches are contained in FMFM 6-1, Marine Division, and FM 55-30, Army Motor Transport Operations.

c. Helicopter Movement.--Details for planning and executing helicopter movements are contained in FMFM 5-3, Assault Support.

d. Fixed-Wing Aircraft Movement.--(See 5-1, Marine Aviation.)

e. Rail Movement.--(See FM 55-20, Army Rail Transport Operations, and FM 101-10-1, Staff Officer's Field Manual; Organizational, Technical, and Logistical Data.)

Section III. OFFENSIVE OPERATIONS

3301. GENERAL

a. The primary mission of the regiment in offensive operations is to close with and destroy or capture the enemy. Although the Marine rifleman normally moves on foot, the regiment often employs helicopters, motor transport, and tracked vehicles to add mobility. The helicopter affords a degree of mobility which greatly increases the capability to employ tactical units over extended distances. This capability enables the regimental commander to concentrate the necessary combat power at the decisive time and place and then rapidly disperse his forces as necessary once the desired result has been attained.

b. Firepower, maneuver, and shock effect are exploited to accomplish the regimental mission. Decisive offensive action usually requires some concentration and the extent of concentration that may be accepted is influenced by several factors. Accomplishment of the mission remains the paramount consideration.

c. The regiment must be prepared to conduct offensive operations under the threat of enemy nuclear attack. The tactics and techniques employed must recognize possible enemy nuclear attack and whether or not such weapons are available for support of its own operations.

d. The basic characteristics of offensive action remain unchanged at the regimental level. However, new techniques, organization, and equipment reflect warfare that is dispersed, mobile, and flexible to a degree previously unknown.

e. For offensive operations of a special nature see FMFM 8-1, Special Operations; FMFM 8-2, Counterinsurgency Operations; and FMFM 8-4, Doctrine for Navy/Marine Corps Joint Riverine Operations.

3302. BASIC CONSIDERATIONS

In addition to the mission, there are certain basic considerations which influence all tactical operations of the infantry regiment. These are weather, terrain, enemy situation, combat power, distribution of forces, reconnaissance, security, deception, mobility, and unit separation. The regimental commander must consider these factors during all tactical planning.

a. Weather.--The primary considerations with respect to weather are its effects on trafficability, observation, and the employment of nuclear weapons. Helicopter and air operations in support of the regiment may be curtailed by adverse effects of temperature, precipitation, visibility, cloud cover, and wind. Conversely, adverse weather may contribute to the success of the regimental attack by facilitating attainment of surprise or by reducing the enemy's operational capabilities.

b. Terrain

(1) General.--Key terrain, designated as objectives or objective areas, is seized as a means of controlling the battle and creating

favorable opportunities for employment of offensive combat power. Control may be maintained by maneuver in relation to the objective. This method of control may also permit occupation of key or dominant positions by units of the regiment.

(2) Obstacles.--Obstacles assume even greater importance in fluid and dispersed warfare. With effective use of obstacles, relatively small enemy forces may cause an undesirable concentration of the regiment. Regimental operations avoid unnecessary massing and make use of appropriate means of mobility in order to cross or bypass obstacles as rapidly as possible. In the attack, obstacles may be exploited to strengthen the security of one or both flanks of the regiment and to restrict maneuver by the enemy.

(3) Observation.--Observation is essential to the conduct of offensive operations. If adequate observation can be attained through the use of helicopters or fixed-wing aircraft, dominant terrain may be neutralized by supporting arms or bypassed.

(4) Cover and Concealment.--Available means for concealment are exploited to prevent enemy observation. Caution is exercised in occupying wooded or built-up areas since increased casualties may result from the secondary blast effects and fires during nuclear attacks. Terrain relief affords some protection from the effects of enemy nuclear fires as well as the effects of conventional weapons.

(5) Fields of Fire.--The influence of fields of fire affect the ability of the regiment to apply its firepower. This factor assumes greater significance at battalion and company levels where direct fire weapons may be the principal means of attaining fire superiority over the enemy.

(6) Key Terrain.--Any locality or area, the seizure or retention of which affords a marked advantage to either combatant, is designated as key terrain. The feasibility of controlling rather than physically occupying the key terrain features is given full consideration. This control may be exercised by securing the approaches to them, by maintaining surveillance around them, or by physically occupying them but with minimum forces. Extended occupation of key terrain by major elements of the regiment presents a target worthy of nuclear weapons employment by the enemy. Troop concentrations on easily identifiable terrain should be limited to those which are absolutely necessary to accomplish the mission.

(7) Avenues of Approach.--Multiple avenues of approach are employed whenever the requirements of the mission and the nature of the terrain permit. The avenues of approach to be used should permit rapid movement to the objective and facilitate closure with the enemy.

c. Enemy Situation.--The regimental plan of attack is affected directly by strength, dispositions, and capabilities of the units of the opposing enemy force. In many instances enemy forces and installations may be the physical objectives assigned by the regimental commander to his commanders. It is essential that the regimental commander have current and accurate combat intelligence relative to the opposing force.

d. Combat Power

(1) The infantry regiment develops its combat power from a combination of troop strength, mobility, firepower, logistic support, and

tactical skill. In order to accomplish its mission, the regiment employs its combat power to an overwhelming degree against the enemy at a decisive time and place. The regimental commander determines the combat power required in a given situation. In arriving at this determination, the following factors are considered:

(a) Mission.--The decision as to how the regiment will accomplish its mission initially determines the relative combat power required.

(b) Enemy Weakness or Vulnerability.--If the regimental commander is able to determine an enemy weakness, he exploits this weakness to achieve decisive results. The enemy may demonstrate weakness with respect to capabilities, strength, dispositions, and tactics, or he may be vulnerable in certain special areas. Careful evaluation of information concerning the enemy is essential in order to determine the combat power required.

(c) Terrain.--The terrain may influence the degree of combat power required. A greater amount of combat power is required against an enemy force occupying highly defensible terrain containing good observation and fields of fire than might be required to defeat an enemy who occupies terrain less suited to the defense.

(d) Momentum of Attack.--The regimental commander considers means to be used to maintain the momentum of the attack, to ensure that it is directed at a decisive objective, and is not dissipated on tasks of secondary importance. Continuous momentum during the attack keeps the enemy off balance and thereby reduces the degree of combat power or mass required to successfully accomplish the regimental mission.

(e) Mobility.--The capability for mobility provides the regimental commander with an added degree of flexibility in the application of combat power, decreases closure time, and facilitates maintenance of momentum during the attack.

(f) Timing.--The regimental attack is timed to take advantage of superior combat power and requires speed of maneuver coupled with rapid execution of bold decisions. The amount of time required to maneuver elements of the regiment which employ varying degrees of mobility is an especially important consideration in tactical planning. The ability of external agencies to deliver maximum supporting fires in support of the regiment must also be considered in determining the time of attack. Attacks should be launched at varying times of the day and night in order to keep the enemy off balance and avoid the development of a pattern.

(g) Leadership.--Maximum results from available combat power are attained by positive and dynamic leadership at all echelons of command within the regiment. The large area encompassed by the battlefield and the speed and fluidity of combat dictate the issuance of mission orders or the assignment of broad tasks, with a priority of accomplishment, to battalions.

(2) Nuclear or Chemical Fires.--When available, nuclear fires assist in attaining the desired combat power by the regiment. Employment of nuclear or chemical weapons may reduce the size of units needed in the

assault echelon. This in turn may permit the adoption of formations in depth and afford increased flexibility at all echelons within the regiment.

e. Distribution of Forces.--To achieve the required superiority of combat power, the regimental commander determines the most effective distribution of his forces. He normally divides available forces into main and supporting attacks and a reserve. Proper utilization of available fire support is an important factor in determining the best distribution of forces to accomplish the mission.

(1) Main Attack.--Cover and concealment are seldom uniform in all parts of the regimental zone of action. Further, available supporting fires are seldom sufficient to simultaneously neutralize all the hostile forces opposing the regiment's advance. Therefore, the regimental operation plan provides for a concentration of effort against decisive objectives; i.e., those objectives whose capture will facilitate the advance of the rest of the regiment and result in the accomplishment of the mission. This becomes the main attack. The main attack is accorded first priority in the allocation of combat power. It must be provided the means to gain decisive superiority over the enemy. Because the enemy also recognizes the importance of certain terrain features, he ordinarily can be expected to defend them in strength. The regimental commander may consequently be forced to make his main attack against a defended position. In the execution of the main attack, however, he makes every effort to locate the enemy weaknesses or to maneuver over terrain where the defender cannot use his weapons or obstacles to advantage. The regimental attack takes advantage of approaches which permit maneuvering units to advance close to the enemy position or in areas where the enemy's defensive positions are exposed to observation and fire.

(2) Supporting Attacks.--Supporting attacks are conducted as required to facilitate the progress of the main attack. Minimum essential combat power is assigned to a supporting attack consistent with its ability to accomplish the assigned mission. Supporting attacks are characterized by assignment of wider zones of action and the seizure of limited objectives. It is desirable that the supporting attacks deceive the enemy as to the location of the main attack, prevent enemy disengagement, cause the enemy to commit forces indecisively, and delay his reaction. If a supporting attack presents unforeseen success or presents an unexpected opportunity for success, the regimental commander must be ready to alter the scheme of maneuver and plan of supporting fires or commit the reserve to exploit this advantage; i.e., to make the supporting attack the main attack. Unhesitating reaction and sound evaluation of the situation are essential to the success of a decision in such instances.

(3) Reserve

(a) Those combat units which are not committed in the main or supporting attack ordinarily comprise the regimental reserve.

(b) The regiment normally begins an action with a portion of its strength in reserve. The regimental commander weighs the situation, terrain, probable missions, and overall combat strength of his command in determining the size and composition of the reserve. In some cases, the regiment may be assigned objectives covering such a wide zone that he must commit a majority of his strength initially. On the other hand, there will be situations where the assigned objective may be so deep that it can be seized only by strong, sustained action requiring that an adequate reserve be withheld to influence the action at the decisive time and place.

f. Reconnaissance and Surveillance.--Of utmost importance to the regimental commander's plan of attack are current and accurate intelligence and aggressive, continuous target acquisition. These may be attained through the employment of external information gathering means, attached or supporting units, and means organic to the regiment.

g. Security

(1) The preservation of secrecy and the ability to gain and maintain freedom of action are the direct results of security in offensive operations. The regiment's success may depend to a large measure on the emphasis placed on secrecy prior to and during the attack.

(2) Combat frequently may dictate an attack by the regiment with one or both flanks exposed. This requires continuous measures to provide adequate warning of enemy approach. When the regiment moves on more than one axis, security elements are maintained between units as well as on the flanks.

(3) The regiment may employ attached reconnaissance elements to precede the attacking echelons. However, the assault battalions normally perform the required reconnaissance, leaving the flanks as the primary concern of the reconnaissance units or security elements provided by the regimental reserve.

(4) The regiment moves to the attack at night or during periods of reduced visibility whenever possible. If it must move during the day, it may be desirable that units move by different routes. Units should avoid unnecessary massing or prolonged halts in the vicinity of the line of departure.

(5) Although subordinate commanders require advance information in order to prepare necessary plans, individual Marines in the forward areas are informed only enough in advance to prepare for their part in the action.

(6) Dispersion is habitually practiced as a passive security measure. Passive security against hostile air and nuclear attack is provided by dispersion of individuals and units, camouflage, movements during periods of reduced visibility, and the use of covered and concealed routes of approach.

(7) Security against armored attack requires early detection by aerial and ground reconnaissance and counteraction by antitank and tank units.

h. Deception

(1) General.--Deception measures are employed to disguise the regiment's capabilities, intentions, and dispositions. They serve to mislead the enemy. Under conditions of wide separation, there will be more opportunities for employment of combat deception as a part of the regimental plan of attack.

(a) Combat deception plans must be approved by the next higher commander prior to implementation to ensure that they will not compromise other deception or operation plans of higher or adjacent units.

(2) Feint.--A feint is a show of force intended to mislead the enemy. It normally consists of a shallow, limited objective attack executed by a small portion of the total force. Feints include those actions which are taken to make a pretended blow or attack. In river crossings, a show of force is demonstrated by elements of the assault force, with a limited objective attack on the far side of the river, intended to deceive the enemy as to the exact location of the actual crossing sites. Feints may vary in size from a small raid to a sizable supporting attack. They are most effective when the enemy has a large reserve, when there are several feasible courses of action open to the attacker, and when the force employed is of adequate strength and composition to cause the desired enemy reaction. Planning and execution of feints are similar to those of other offensive operations.

(3) Demonstration.--A demonstration is an attack or show of force on a front where a decision is not sought, made with the expectation of deceiving the enemy. In an amphibious operation, a demonstration may be an exhibition of forces which may consist of a feint or a minor attack. In general, demonstrations differ from feints in that there is no advance against the enemy. The basic sonsiderations and techniques of planning feints also apply to demonstrations. They may be offensive or defensive in nature and may include movement of subordinate elements of the regiment, application of all types of fires supporting the regiment, false communication traffic with subordinate and higher echelons, and any other activities which serve to deceive the enemy.

(4) Other Measures.--Other deception measures include camouflage, concealment, placement of dummy or real decoys, ruses, disposition of actual items of equipment, and manipulation of radio communications. Dummy installations employed to draw enemy fires are located so that actual friendly installations will not be within the area affected by such fires. This consideration is critical when the enemy possesses a nuclear capability.

i. Mobility

(1) The Marine Corps achieves its strategic mobility as a force in readiness through the capability to move by air and/or surface means to an objective area and to execute an amphibious assault. In ground combat, the concern is centered upon tactical mobility. Marine infantry units must have the ability to move about on the immediate battlefield. Means by which mobility can be achieved include:

(a) Decreasing the logistic burdens for combat units and lessening the load of the individual Marine.

(b) Using all available means to achieve rapid maneuver and the ability to move combat units over terrain otherwise considered impassable.

(c) Improving communications and control.

(2) As a facet of mobility, the command must be able to move at night or under conditions of reduced visibility as well as in the

daytime. Certain characteristics which lend emphasis to night movement are the fluid nature of tactical operations, the increased importance of tactical deception, and the concept of unit separation. The shifting of position under cover of darkness, both to permit the employment of mass destruction weapons as well as to exploit their fires, is another requirement.

(3) Traditionally, Marines have moved to battle on foot. However, the full use of transport capabilities which are available to the regiment can radically influence tactical mobility. These include helicopters, assault amphibious vehicles, and tanks, as well as motor transport.

(4) When the situation requires and when external means of transportation are available, the regiment seeks to conduct a highly fluid type of warfare which exploits the capabilities for mobility, concentration of forces, and supporting fires.

j. Unit Separation.--Units of the regiment may be separated by distances appropriate to demands of security, concealment, and mutual support, with consideration given to the weapons and tactics of the enemy. When the enemy is capable of employing nuclear weapons, unit separation in the attack is essential to avoid presenting the enemy a profitable target. Strict discipline in the control of unit separation is maintained in both tactical areas and logistic support areas. The degree of separation required depends primarily on the estimate of the enemy's nuclear capability. The estimate of nuclear capability is normally determined by higher authority. A proper balance between unit separation and concentration of combat power is necessary to prevent the enemy from accomplishing his defensive mission by the mere threat of employing nuclear weapons.

3303. TYPES OF OFFENSIVE OPERATIONS

a. General.--There are three tasks to be performed in carrying the battle to the enemy: locating and holding the enemy in position; maneuvering against him to gain a tactical advantage; and at the decisive time and place, delivering an overwhelming assault which destroys him. In order to accomplish these tasks, five general types of offensive operations have evolved: movement to contact, reconnaissance in force, coordinated attack, exploitation, and pursuit.

b. Movement to Contact

(1) General

(a) A movement to contact is a tactical operation to gain initial contact with the enemy or to regain lost contact. The purpose is the early development of the situation to provide an advantage prior to decisive engagement.

(b) It may take the form of an administrative march when contact with the enemy is remote, a tactical column when contact is improbable, or an approach march when contact is imminent. As the probability of contact increases, security becomes increasingly important.

(2) Security

(a) Every collection means and agency is used to secure information about the enemy to prevent surprise and to gain a maneuver advantage. When contact becomes imminent, reconnaissance and security measures are intensified and formations are adopted which allow continuation of movement or facilitate immediate entry into combat.

(b) The use of concealed routes and assembly areas, movement by protected routes, night movement, unit dispersion, and increased interval within columns are measured against enemy attack.

(c) Movement should not be unnecessarily delayed or restricted by security measures. Speed and mobility will enhance security.

(3) Planning

(a) Although the movement to contact must be carefully planned, battalion commanders should be given maximum authority and freedom of action in order to move rapidly and aggressively.

(b) March objectives, phase lines, checkpoints, and axes of advance are employed. The regiment must be able to plan and disseminate mission-type orders to effectively commit itself in a coordinated attack when the situation calls for it.

(4) Approach March.--Regardless of the method used, the force conducting the movement to contact uses the approach march formation when contact with the enemy is imminent. The force organized for the approach march consists of three primary components: advance guard, main body, and flank and rear guard.

(a) Advance Guard.--The advance guard operates ahead of the main body to ensure its uninterrupted advance and to protect it from surprise attack.

(b) Main Body.--The bulk of the force's combat power is contained in the main body and is immediately available to attack major enemy forces or the force objective. Units within the main body are organized for combat and are positioned so as to permit maximum versatility for employment during the advance or after contact with the main enemy force has been made.

(c) Flank and Rear Guard.--Flank and rear guard forces, operating either under control of the main body or elements of the main body, protect it from ground observation, direct fire, and surprise attack. These forces must be strong to defeat minor enemy forces or to delay strong enemy attack until the main body can deploy.

(5) Meeting Engagement

(a) During the movement to contact, the regiment may be confronted with a meeting engagement. This situation could occur at a point in time when sufficient intelligence is unavailable and units are not fully deployed for combat.

(b) The initial requirement is to develop the situation sufficiently to determine the nature of the enemy force and its capabilities. The main objective of subsequent actions of the regiment must be to seize and maintain the initiative. Without this, the regimental commander can only react to the enemy's movements.

(c) Some of the courses of action for the commander to consider in this situation are enumerated below:

1 Attack piecemeal from march formation as fast as units can be brought into battle.

2 Reconnoiter and contain the enemy force and defer decisive commitment until sufficient units can be massed for a coordinated offensive or defensive action.

3 Attempt to break contact and avoid or bypass the enemy force.

c. Reconnaissance in Force

(1) General

(a) The reconnaissance in force is an attack conducted with the purpose of discovering and testing the enemy's dispositions and strength and to precipitate action. Although its primary purpose is reconnaissance, it may discover weaknesses in the enemy dispositions which, if promptly exploited, may permit tactical success by a coordinated attack.

(b) When the availability of nuclear weapons permits, and are authorized, the regiment may be employed in widespread and continuous reconnaissance in force operations. Under these conditions the reconnaissance in force locates the enemy units and forces or lures them into forming targets. It subsequently holds them in this configuration until nuclear fires can be used. Designated elements then complete their destruction by coordinated attack. The regimental reserve is held ready to replace or relieve maneuver elements or to exploit opportunities which may develop.

(c) See figure 15 for an example of an infantry regiment conducting a reconnaissance in force.

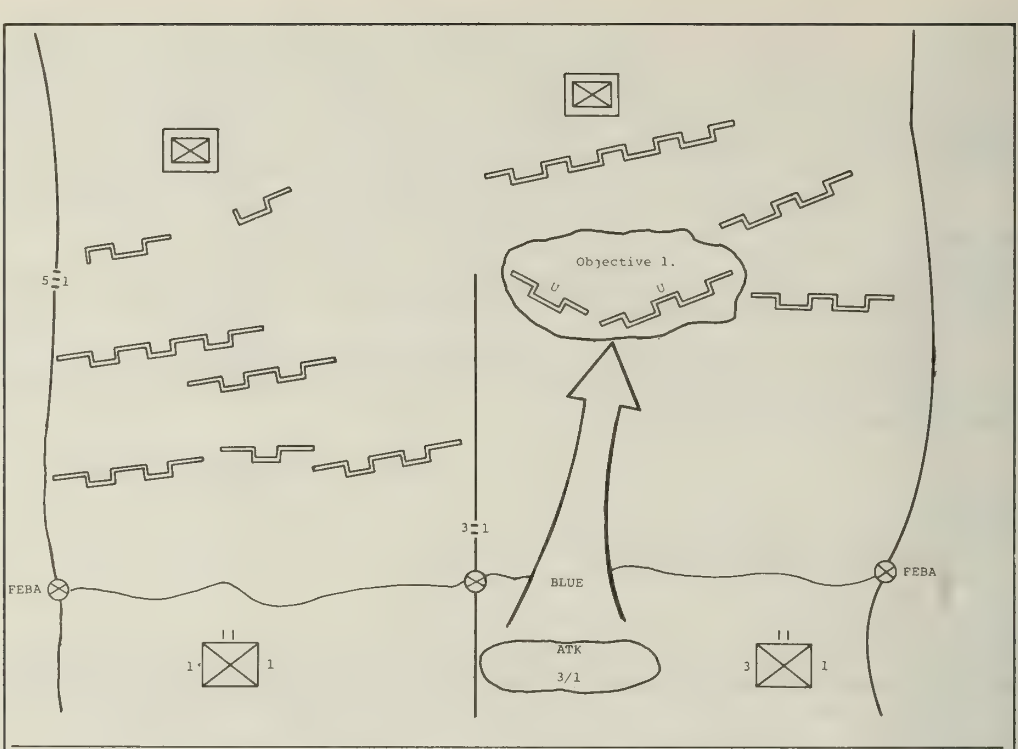
(2) Basic Considerations

(a) The reconnaissance in force normally develops information more rapidly and in more detail than other reconnaissance methods. In arriving at a decision to reconnoiter in force, the commander considers the:

1 Extent of his present knowledge of the enemy situation and the urgency and importance of the additional information sought.

2 Efficiency and speed of other intelligence collection agencies.

3 Extent to which his overall plan of action may be divulged by the actions of the reconnaissance in force.



Mission of reconnaissance in force: (limited objective)

1. Seize objective 1.
2. Withdraw on division order.

Purpose of reconnaissance in force:

1. Determine nature of enemy positions in objective area.
2. Determine enemy plans for employment of reserves and reaction times.
3. Determine enemy defensive fires.

Figure 15.--An Infantry Regiment Conducting a Reconnaissance in Force (Limited Objective Attack--Directed Toward an Area).

4 Possibility that the reconnaissance in force may lead to a general engagement under conditions which are unfavorable to the regiment.

(b) When information is sought concerning a particular area, the reconnaissance in force is planned and executed as an attack with a limited objective. If the enemy situation along a front is to be developed, the reconnaissance in force is conducted as strong, aggressive probes to determine the enemy situation at critical points.

(c) The reconnoitering force must be of size and composition to cause the enemy to react strongly and definitely to the attack, thus disclosing his locations, dispositions, strength, planned fires, and planned use of the reserves. The regimental commander may use a battalion task force as the reconnoitering element or he may use the bulk of the regiment retaining sufficient reserves to exploit enemy weaknesses.

(d) Units designated to make the reconnaissance in force are assigned sufficient combat power and mobility to uncover main enemy positions. A balanced force of tanks and troop vehicles is generally considered the best approach.

(3) Conduct of the Reconnaissance in Force

(a) Although reconnaissance in force is a form of attack, restrictions may be placed upon the commander of the force to avoid actions which might precipitate a general engagement.

(b) The regimental commander is alert to exploit success achieved by the reconnaissance in force. Such actions include continuation of the attack or control of terrain seized by the force. Suitable targets discovered by the forces are attacked and their destruction is completed through local exploitation by the reconnoitering force.

(c) The regimental commander prepares to assist in the extrication of the force if it becomes closely engaged.

(d) Upon completion of its reconnaissance, the force may remain in contact with the enemy or may withdraw. If the reconnaissance is to be followed by a coordinated attack, other units pass through the reconnoitering force or the reconnoitering force may progress to the coordinated attack.

d. Coordinated Attack

(1) General.--A coordinated attack is a deliberate attack that is planned in detail and normally undertaken after thorough reconnaissance, methodical evaluation of relative combat power, acquisition and development of targets, and an analysis of all other factors affecting the situation. It may be made before or after other types of offensive operations. This is the type of operation which comes to mind most frequently when the terms offensive or attack are used. The coordinated attack is designed to destroy the enemy in position or in an area the attacker chooses. It is conducted after the situation has been as thoroughly developed as time permits when an enemy position, usually well organized, must be destroyed or penetrated. The use of combined arms, consisting of infantry, armor, artillery, aviation, troop vehicles, and all other available combat support means in coordination, contribute materially to its success. The objective of the overall force in a coordinated attack is the complete destruction of the enemy. The objectives of subordinate elements of the force vary from the seizure of terrain features to the neutralization of combat support and service support elements of the enemy force. The type objective assigned to a particular subordinate element depends on its mission within the overall scheme of maneuver.

(2) Conduct.--The coordinated attack is characterized by complete integration of the effort of all means available, mutually supporting arms, and by fire and maneuver/movements. The attack is usually preceded by preparatory fires, wherein the base of fire places a heavy volume of fire on preselected targets for specified periods of time. These fires are coordinated with the forward movement of the maneuver force. Elements of the maneuver force move rapidly from dispersed formations until required to mass to achieve sufficient combat power to overcome enemy resistance. The attack plan is aggressively executed, and all favorable developments are exploited. If the attack lags in one portion of the zone, the weight of the attack is shifted to the area offering the most opportunity for success. As enemy resistance is encountered, maneuver elements converge, following their supporting fires closely until they are within assaulting distance of the hostile position. The

assault is a short, well coordinated, and violent effort which overruns or destroys the enemy. The goal of the assault is to bring upon the enemy, simultaneously, the maximum combat power of infantry, tanks, aviation, and other fire support means necessary to destroy him as rapidly as possible with minimum casualties to friendly personnel and material assets. Upon destruction of the objective, all means are quickly reorganized and used to continue the attack without delay. Due to the nature of this type operation, the fundamentals of combat operations and offensive tactics are particularly applicable, especially the actions the commander takes to generate maximum combat power and retention of the initiative by bold and aggressive employment of overwhelming combat power at the decisive time and place.

e. Exploitation

(1) General.--Exploitation is taking full advantage of success in battle and following up initial gains. While individual local exploitation may appear insignificant, cumulative effects of such actions may be decisive. The regiment may be engaged in exploitation of its own success, may be employed as the exploiting force for a higher echelon, or may be assigned to follow and support another exploiting force.

(2) Basic Considerations

(a) Exploiting forces may be given the mission of destroying objectives deep in the enemy rear, cutting lines of communication, surrounding and destroying enemy forces, denying escape routes to an encircled force, or destroying enemy reserves.

(b) Speed and combat power are required by exploiting forces. Tank units and mechanized infantry normally make up the forward elements. Helicopters are used to provide mobility to foot elements. Provisions are made for engineer support to overcome obstacles. Adequate communication support must be furnished.

(c) Preparation for exploitation entails planning the exploitation, issuing warning orders, grouping necessary forces, providing for logistic support, and establishing communications.

(d) The regimental commander must be ready at all times to exploit opportunities afforded by the enemy. Opportunities for major exploitations are indicated by an increase in prisoners captured, an increase in abandoned materiel, and the overrunning of artillery, command facilities, communication installations, and supply dumps. This transition from attack to exploitation may be so gradual as to be hardly distinguishable, or it may be abrupt. The latter occurs most frequently when nuclear weapons are used.

(e) When nuclear fires are not available or their use is limited, the exploitation normally occurs after the successful assault or destruction of the regimental objective. With adequate nuclear support, however, the exploitation may be launched in conjunction with the initial assault or at any time thereafter, dependent upon the effects of the fires and the desires of the commander.

(f) Once the exploitation is begun, it is carried out without interruption to the final objective. THE ENEMY IS GIVEN NO RELIEF FROM THE PRESSURE OF THE OFFENSE.

(g) Decentralized execution is characteristic of the exploitation. However, the regimental commander maintains sufficient control to prevent over-extension of the command. Minimum control measures are used. Combat service support and combat support plans are flexible and combat service support operations are normally decentralized.

(h) In the exploitation, nuclear, conventional, and chemical weapons are used principally on targets of opportunity. These weapons are used to eliminate pockets of resistance, destroy hostile reserves, seal enemy escape routes, and destroy enemy nuclear delivery means.

(i) Reconnaissance type aircraft maintain contact with the enemy, locate enemy movements, and keep the command advised of enemy activities. Supporting aircraft inflict maximum damage by attacking enemy routes especially at defiles, reserves, and withdrawing columns.

(j) Class III consumption rates normally are high and provision for rapid resupply is essential. Security of ground supply columns must be considered since forward elements may be operating behind bypassed enemy forces. Aerial resupply may be necessary.

(3) Conduct of the Exploitation

(a) Employment of forces in the exploitation is similar in many respects to movement to contact. Attack from march column is normal. Exploiting forces advance rapidly and arrive at their objectives with maximum strength. The exploiting force clears only as much of its zone as necessary to permit continuation of the advance. Commanders avoid dissipation of forces in the minor tactical efforts. Enemy forces which interfere or can interfere with accomplishment of the mission are destroyed. Exploiting forces bypass or contain enemy resistance of insufficient strength to jeopardize the accomplishment of the mission with minimum forces. Bypassed enemy forces are reported to higher headquarters or to the following units.

(b) When the leading elements of a march column make contact with enemy forces, they deploy and attempt to bypass or to continue to advance. If the resistance is too heavy for the leading elements to overcome or cannot be bypassed, they develop the enemy position and report their action to the main body. Succeeding elements in the column are employed to strengthen the leading elements, to execute a coordinated attack.

(c) Commanders use all means and weapons to overrun enemy forces which cannot be bypassed or contained. Exploitation continues day and night without regard to weather. Reconnaissance elements, both ground and air, keep commanders informed of enemy action. Rapid advance of exploiting forces reduces their vulnerability to enemy counteraction. As the action begins to demoralize the enemy and his forces begin to disintegrate under pressure, exploitation may develop into pursuit.

(d) Units which follow or support are initially employed to prevent the enemy from closing the gap in a penetration and to hold key terrain. As the exploiting force advances, these following and supporting units secure lines of communications, mop up bypassed pockets of resistance, expand the area of exploitation, and block the movement of enemy reinforcements into the area. Following and supporting units relieve elements of the exploiting force which have been left to block or contain enemy forces or to protect areas or installations.

(e) Following and supporting units must be capable of keeping up with exploiting forces. They may employ nuclear fires in the accomplishment of their missions. Close liaison is established between commanders of the following and supporting units and the exploiting force. Elements of the following and supporting units may be attached to the exploiting force.

f. Pursuit

(1) General.--It differs from the exploitation in that its primary function is to complete the destruction of the enemy force while it is in the process of disengagement, rather than prevent the enemy force from organizing a defensive position. While a terrain objective may be designated, the destruction of the enemy force itself is the primary objective. The pursuit usually consists of constant direct pressure applied on the retreating enemy. Either one or both of the below may be used.

(a) The mission of a direct pressure force is to prevent the enemy from disengaging and subsequently reconstituting the defense, and concurrently, to inflict maximum casualties. It does this by constant attacks, both day and night. The enemy is not allowed to break contact and is denied opportunities to reorganize or to reestablish a defense. Leading elements of the direct pressure force move rapidly along all available roads, containing or bypassing small enemy pockets of resistance which are reduced by following units. At every opportunity, the direct pressure force envelops to cut off and destroy enemy elements, provided such actions do not interfere with its primary mission.

(b) An enveloping force may be used to get in the rear of the enemy and block his escape so he will be destroyed between the direct pressure and enveloping forces. It advances along or flies over routes paralleling the enemy's line of retreat to reach defiles, communication centers, bridges, and other key terrain ahead of the enemy main force. Helicopterborne, armored, and mechanized units are particulary effective as encircling forces. If the encircling force cannot outdistance the enemy, it attacks the enemy main body on its flank.

(c) The regiment may conduct local pursuits or it may be designated as the direct pressure force, enveloping or turning force of a higher echelon in the pursuit.

(2) Basic Considerations

(a) A force in the exploitation is alert to indications of enemy collapse which enable pursuit. It makes prior preparations for pursuit including issuance of warning orders, regrouping of forces, and plans for logistic support. All possible means are used to maintain the continuity of the attack. When the enemy can no longer hold his positions and as he seeks to escape, the pursuit is launched. Prompt exploitation of nuclear fires may result in the launching of the pursuit during the initial assault.

(b) Successful pursuit requires unrelenting pressure against the enemy to prevent reorganization and preparation of defenses. This requires that troops and equipment be pushed to the limit of endurance. Commanders are located well forward in order to be certain that the impetus of advance is maintained. Greater risks may be justified to achieve decisive results.

(c) When the regiment conducts local pursuit operations, organization for combat provides a direct pressure force of sufficient size and composition to maintain continuous pressure. The encircling force must have mobility superior to that possessed by the enemy and it must be organized for semi-independent operations. In this connection, the enemy's inability to react effectively may reduce the need for mutual support. Engineer support is required by both forces to clear obstacles which may prevent advancing columns from moving rapidly. Adequate communication support is provided.

(d) Preparations are made for logistic support during the pursuit. Class III consumption can be expected to be particularly high. Transportation means include fixed-wing aircraft and helicopters which possess the capability for prompt delivery of supplies to forward units and for evacuation. Maximum use is made of captured enemy material, particularly transportation and stocks of supplies.

(e) Security is enhanced by the speed of advance, the enemy's inability to react effectively, and the dispersion of forces.

(3) Conduct of the Pursuit

(a) The pursuit is conducted on as broad a front as possible. Forces engaged in direct pressure and encircling maneuvers are given deep objectives with mission type orders. Minimum control is exercised over these elements. Maximum latitude is given subordinate commanders for exercise of their initiative. Decentralization of fire support and logistic support means is usually necessary.

(b) Direct pressure forces advance relentlessly while the encircling force cuts the enemy's lines of retreat. Double envelopment of the retreating main force or its elements is accomplished when conditions permit. Hostile rear guards or forces on flank positions are not permitted to divert the main force from its mission. Helicopterborne units are used to envelop enemy rear guards, expediting their destruction and speeding the movement of the force. If the enemy's main force establishes itself on a position from which it cannot be quickly dislodged, the commander immediately attacks. If the attempt to cut the enemy's escape routes fail, a new encircling force is immediately dispatched.

(c) Air support is very effective in pursuit operations. Reconnaissance aircraft keep commanders informed of locations and activities of enemy forces and close air support aircraft inflict maximum damage on the retreating enemy, concentrating on his lines of withdrawal, tactical formations, and reserves.

3304. FORMS OF OFFENSIVE MANEUVER

a. General.--Offensive maneuver is the movement made to place combat power in an advantageous position with respect to the enemy, to close with him, and to destroy him. Although maneuver is made with respect to the enemy, the ability to maneuver is closely related to battlefield initiative. The initiative lies with the attacker so long as he retains freedom of action to select the time and place of the engagement. In the final analysis, the tactical advantage being sought through maneuver is the disposition of the friendly force in such a manner as to facilitate the destruction of the enemy.

(1) The commander may orient his attack on the front, flank, or rear of the enemy. Helicopterborne operations that place forces on the enemy's flanks or in his rear can be used during all forms of maneuver.

(2) The basic forms of maneuver are the envelopment, the penetration, and the frontal attack. The envelopment and the penetration are the primary forms of maneuver employed by the regiment. The double envelopment, turning movement, and encirclement are variations of the envelopment.

(3) The distinction in the form of maneuver employed by the regiment exists primarily in the intent of the regimental commander, since his subordinate units may use other forms of maneuver.

(4) A higher commander seldom dictates the form of maneuver to be adopted by the regiment. The mission assigned, including the tasks derived from it, and the requirement for secrecy may impose limitations in time and direction of attack, thus indicating a form of maneuver to be adopted.

(5) The mission of the regiment, characteristics of the area of operations, disposition of opposing forces, and relative combat power of opposing forces are analyzed to determine the best form of maneuver. Normally, terrain, time available, friendly dispositions, ability to support the attack, and the enemy situation are the principle factors in determining the form of maneuver.

b. Frontal Attack.--The frontal attack is a form of maneuver in which the attacker strikes the enemy all along his front by the most direct route. The frontal attack is used to overrun and destroy or capture a weaker enemy in position or to fix an enemy force in position in support of a main attack conducted elsewhere. Subordinate units of a force conducting a frontal attack are not restricted to be on line or conducting frontal attacks themselves. During a frontal attack, the commander seeks to create or take advantage of conditions that will permit a more decisive penetration or envelopment of the enemy defensive positions. (See fig. 16.)

c. Penetration.--In the penetration, a powerful main attack passes through the enemy defensive positions on a narrow front while one or more simultaneous supporting attacks exert pressure on a broad front to deceive the enemy and hold him in place. The purpose of the penetration is to divide the enemy force and defeat it in detail.

(1) The penetration usually progresses in three stages: rupturing the forward enemy defensive positions, widening the gap to permit the employment of follow-on forces, and overrunning or seizing objectives to destroy the continuity of the enemy defense. (See fig. 17.)

(2) The main attack is characterized by a preponderance of combat power organized in depth. A leading force and one or more follow-on forces will give depth to the main attack. The leading force ruptures the enemy defensive positions on a narrow front in a powerful and violent attack. It then widens the gap to permit the employment of follow-on forces, or it maintains the momentum of the main attack by driving on to overrun or seize assigned objectives.

(3) Follow-on forces in the main attack may be used to widen the gap after the leading force has ruptured the enemy defensive positions,

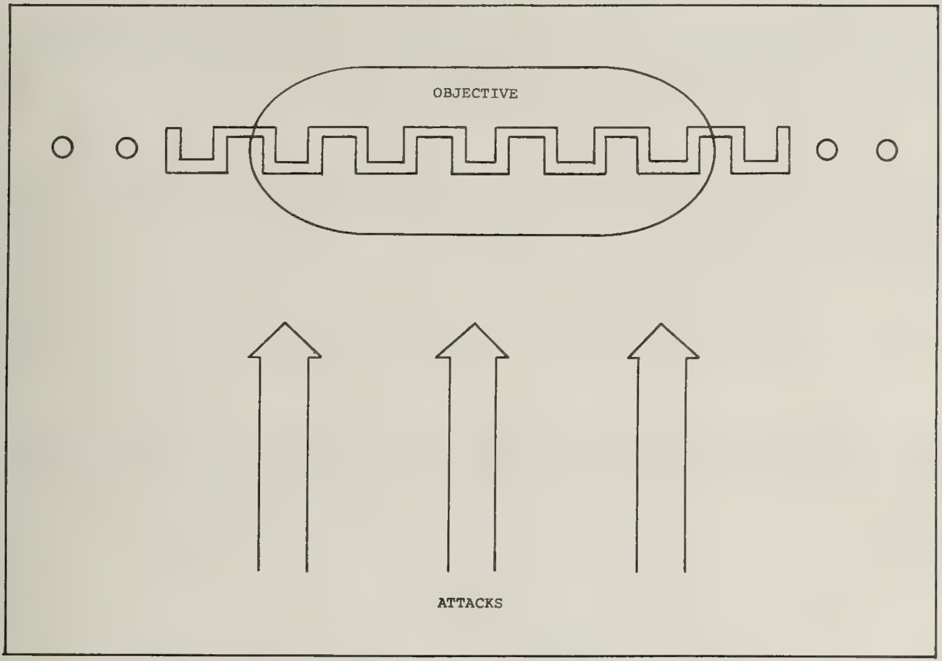


Figure 16.--Frontal Attack.

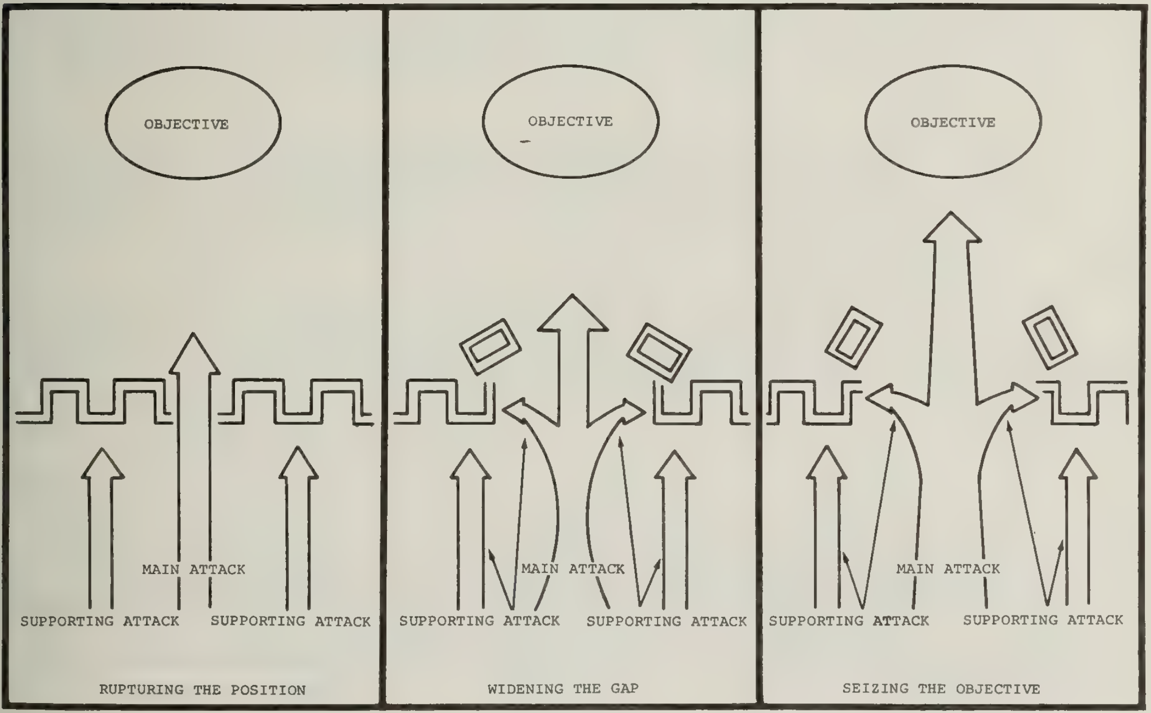


Figure 17.--Penetration.

or they may pass through the leading force and maintain the momentum of the attack by overrunning or seizing assigned objectives in the enemy rear. Follow-on forces may also be employed to attack enemy forces isolated by the momentum of leading forces.

(4) One or more supporting attacks are launched simultaneously with the main attack. These attacks are launched on a wide front to deceive the enemy as to the location of the main attack and to hold him in place. By holding the enemy in place, he is prevented from disengaging to withdraw to escape or to react to the main attack.

(5) The reserve may be used to widen the gap if necessary, but it would most likely be used to reinforce success such as the exploitation.

(6) The three stages of the penetration may be immediately followed by the exploitation. The penetration and the exploitation would then overlap and blend into a continuous operation. The leading force from the main attack may be committed to the exploitation, leaving bypassed objectives to be seized by follow-on forces. Follow-on forces or the reserve may pass through the leading force to move into the exploitation.

(7) Strong fire support is an important element in the preponderance of combat power used in the main attack. It contributes to the power and violence of the main attack and is effective in reducing casualties. Preparation fires cover the movement of the main and supporting attacks and then concentrate to demoralize and weaken the enemy at the point where the main attack ruptures the enemy defensive positions. When the rupture is effected, fire support shifts to support the attacks to widen the gap and the attacks on assigned objectives. Fire support is also used to limit the enemy's ability to react, neutralize his reserve, and engage targets of opportunity.

(8) Objectives are selected in the enemy rear to break up the continuity of his forces and to make his forward defensive positions untenable. Objectives are selected at least to the depth of the enemy reserve and include his fire support means, command and control installations, and reserve, as well as key terrain.

(9) To facilitate the momemtum of the main attack, lateral movement should not be unduly restricted by boundaries or obstacles. Intermediate objectives are normally assigned to the main attack only if they are essential to the accomplishment of the mission. Close liaison must be maintained with forces in contact to facilitate one force passing through another.

(10) Consideration is given to the penetration as a form of maneuver when the enemy is overextended or weak and when his flanks are unassailable. The terrain may be unfavorable to other forms of maneuver or the terrain may favor a penetration because of an abundance of avenues of approach. The availability of superior fire support may favor a penetration, or a penetration may be used when time does not permit another form of maneuver. The penetration is considered when overwhelming combat power is not available.

(11) Evaluation of the terrain is important to a successful penetration. An avenue of approach should be selected to facilitate the

rupture of the enemy defensive position, the widening of the gap, and the seizure of objectives in the enemy rear. The avenue of approach should not result in a gap so narrow that the enemy could easily close it nor should it be so wide that it would require too large a force to open it initially. The terrain should also lend itself to the mobility and control of the attacking force.

(12) Multiple penetrations may be launched simultaneously at division and regimental levels if sufficient combat power is available. In such cases, the main attacks may converge upon a single deep objective, or they may seize several objectives that destroy the continuity of the enemy defense. Enemy forces bypassed by the leading forces in the main attacks are engaged by follow-on forces. If it becomes impractical to sustain more than one penetration, the one having the greatest success is used to destroy the enemy in detail.

(13) With the employment of helicopters, a penetration may be accomplished by landing a helicopterborne force behind the enemy defensive positions and rupturing them from the rear. This maneuver involves elements of the vertical envelopment.

(14) If tanks are available, they will contribute to the power and violence of the main attack. Tanks and other means of ground mobility will increase the momentum of the main attack and lend themselves to the exploitation.

(15) When nuclear fires are authorized and available, they may be used to rupture the enemy defensive positions. Because of the damage caused by nuclear fires, a penetration may be a more desirable form of maneuver than it is when nuclear fires are not employed. Their use would make multiple penetrations at division and regimental levels more feasible. Care must be taken in preparing the nuclear fire plan and the scheme of maneuver to ensure troop safety.

(16) Chemical fires may be used to facilitate a penetration. Smoke may be used to limit the enemy's observation and toxic, nonpersistent chemical agents may facilitate the rupture of the enemy defensive positions. As with nuclear fires, care must be exercised to assure troop safety.

d. Envelopment.--In the envelopment, the main attack passes around or over the main enemy defensive positions to seize objectives in the enemy's rear. The envelopment causes the enemy to fight in two or more directions, and its success depends on surprise, mobility, and the ability of supporting attacks and deception to hold the enemy in place. (See fig. 18.)

(1) In the ground envelopment, the main attack is directed against an assailable flank. An assailable flank is one that can be circumvented without fighting a major engagement.

(2) When committed, the main attack moves rapidly to seize assigned objectives in the enemy rear. Rapid movement is essential to prevent the enemy from redeploying his forces against the main attack or occupying prepared positions. The main attack avoids strong enemy defensive positions and bypasses enemy forces that may delay it in reaching assigned objectives. Security forces are designated to protect the flanks of the main attack. If the enemy extends his front to cut off the main attack, the commander may

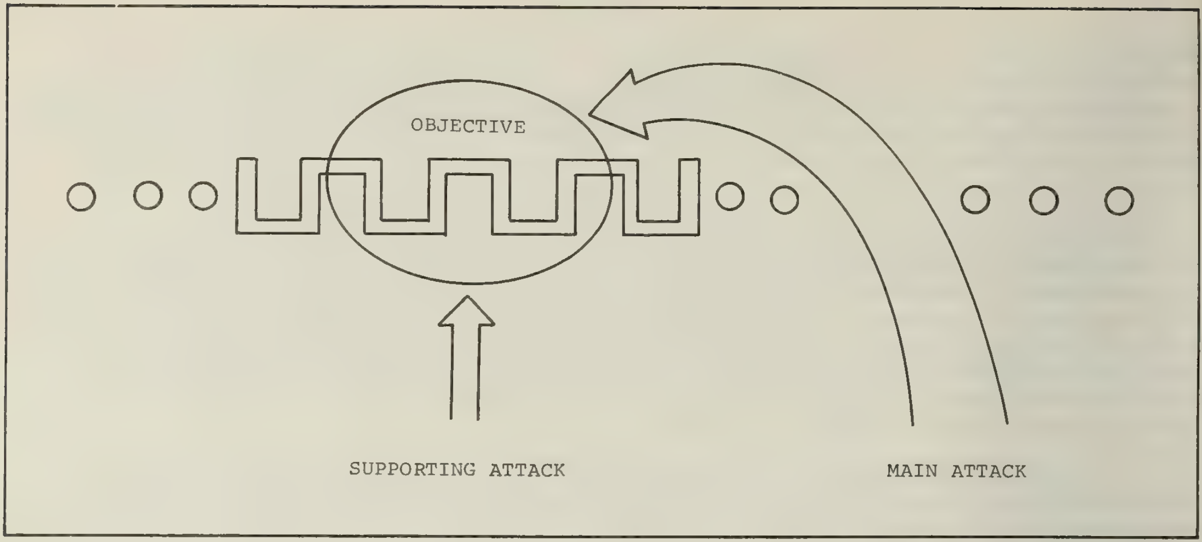


Figure 18.--Envelopment.

decide to penetrate the enemy's extended front. Attempting to outflank the enemy's extended front may be dangerous due to separation of the main attack from the supporting attack.

(3) The primary purpose of the supporting attack is to render maximum assistance to the main attack. A vigorous supporting attack holds the enemy in position and prevents him from maneuvering against the main attack. In some situations, the supporting attack may deceive the enemy as to the existence or location of the main attack. It must have sufficient combat power to seize limited objectives and keep the enemy engaged.

(4) The reserve normally follows the main attack but the commander is alert to exploit success of the main or supporting attacks.

(5) Preparation fires may precede the main attack and/or the supporting attack. If they are used for the main attack, preparation fires are short and intense. Fire support is used to help hold the enemy in place and prevent his maneuvering against the main attack. Fire support is also used to neutralize enemy forces bypassed by the main attack and to destroy the depth of the enemy defense.

(6) Objectives for the main attack are picked to subject the enemy to destruction in position from the flank or rear. They include command and control installations, fire support means, and escape routes. Limited objectives are assigned to the supporting attack to facilitate support of the main attack by holding the enemy in place.

(7) The main and supporting attacks may be launched simultaneously or they may be staggered to divert the enemy. If staggered, the supporting attack is launched first as a diversion to mask the noise and direction of the main attack. Minimum control measures are assigned to the main attack. A zone of action may simplify control and coordination with an adjacent supporting attack or an axis of advance may be used.

(8) Helicopters may be used to make a vertical envelopment over the main enemy defensive positions. They provide the means of delivering fresh troops on or near assigned objectives and increase the mobility and surprise of the attack.

(9) When nuclear fires are authorized and available, they may be used to create an assailable flank for the main attack. Care must be taken in preparing the nuclear fire plan and the scheme of maneuver to assure troop safety.

(10) The double envelopment, turning movement, and encirclement are variations of the envelopment.

(a) A double envelopment is executed by two main attack forces that pass around both flanks of the enemy. Normally a supporting attack fixes the enemy in place. The attacking force must have superior combat power and mobility. To conduct a double envelopment, a regiment would normally be reinforced by another principal maneuver element (e.g., infantry battalion or tank battalion). Precise coordination and timing are necessary for a double envelopment. (See fig. 19.)

(b) In the turning movement, the attacking force seeks to pass around the enemy, avoiding his main strength, to secure an objective deep in the hostile rear. The turning movement differs from the envelopment in that it is not directed at the destruction of the enemy position. The purpose of the turning movement is to force the enemy to abandon his position or divert major forces to meet the threat. The enemy is then destroyed at a time and place of the attacker's choosing. A supporting attack may be required to fix the enemy. Since the force executing the turning movement is usually out of supporting distance of other elements of the force, it must be sufficiently mobile and possess adequate combat power to operate independently. Helicopters are particularly applicable for movement and initial support of this maneuver. Mobility superior to

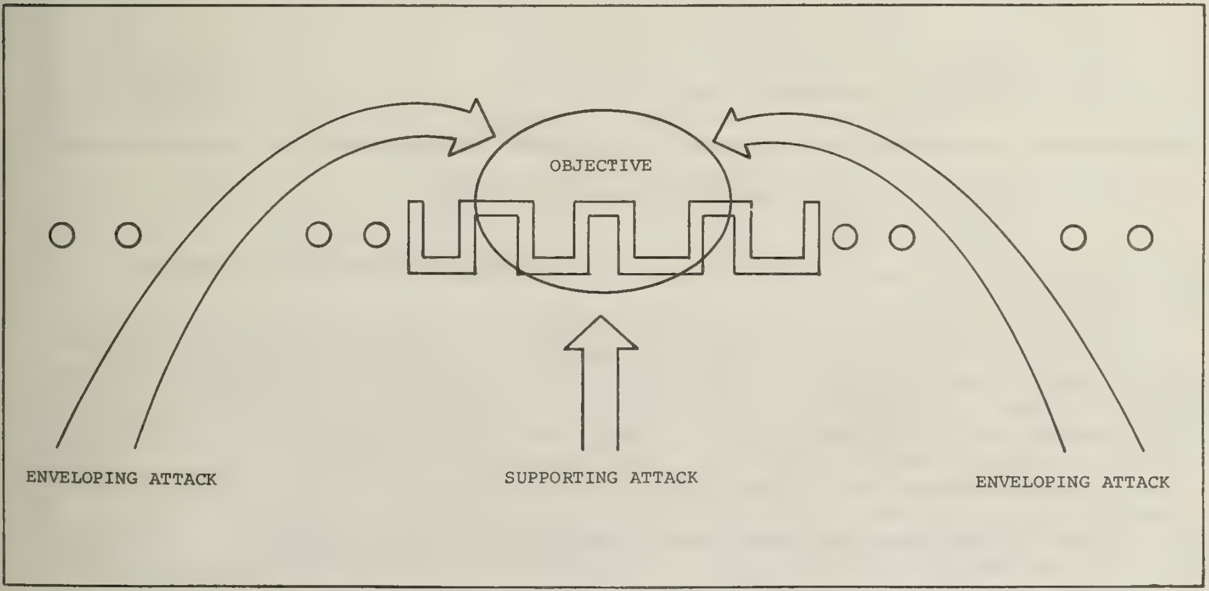


Figure 19.--Double Envelopment.

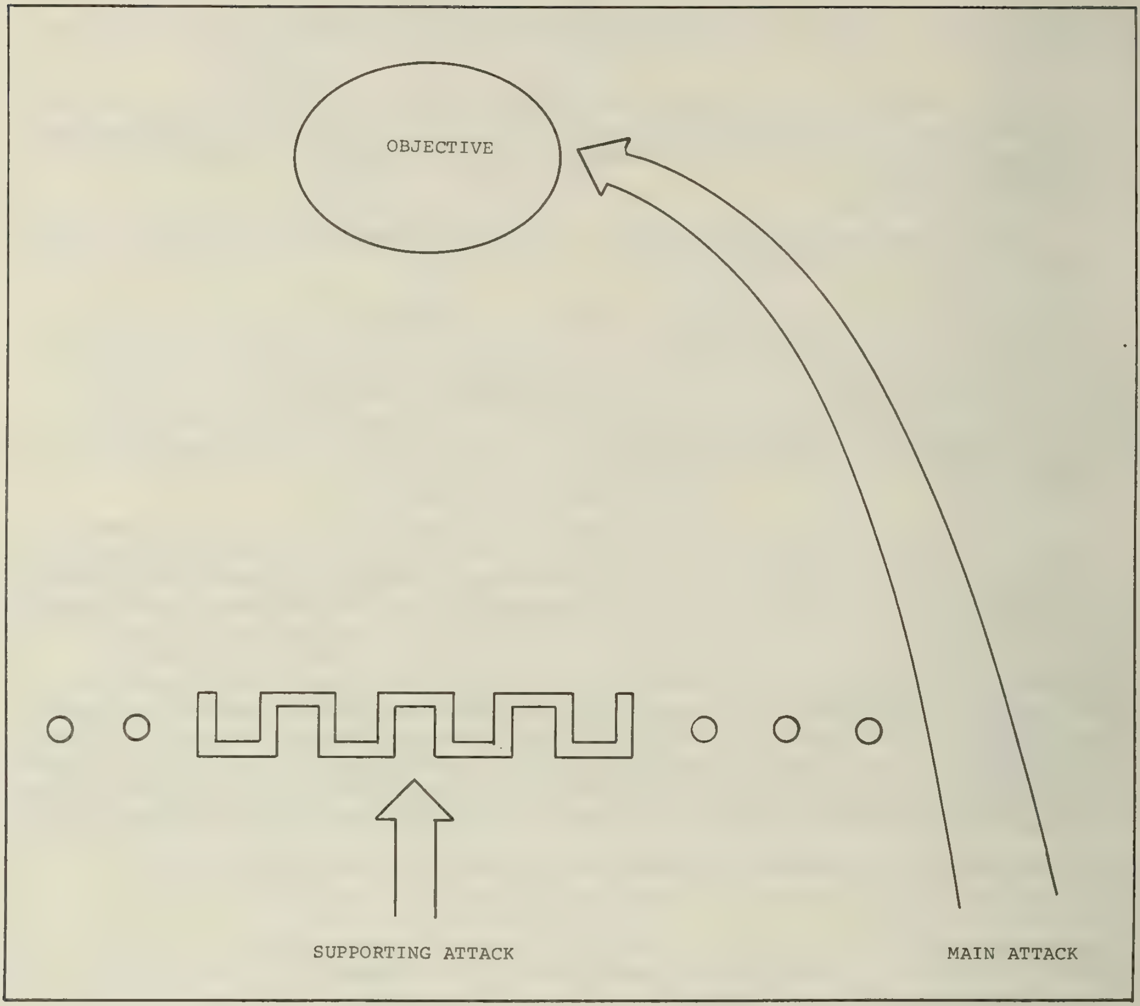


Figure 20.--Turning Movement.

the enemy, secrecy, and deception enhance the opportunity of success. (See fig. 23.)

(c) The encirclement maneuver offers the greatest possibility for fixing the enemy in position and permits his systematic destruction or capture. The encirclement requires a numerical superiority, a great degree of mobility, and surprise, the combination of which make it a difficult maneuver to execute. The use of helicopterborne forces will enhance the opportunity of success. When conducting an encirclement, it is preferable to occupy the entire line of encirclement simultaneously. If this is not possible, the best escape routes are covered first. (See fig. 21.) To conduct an encirclement, a regiment would normally be reinforced by another principal maneuver element (e.g., infantry or tank battalion)."

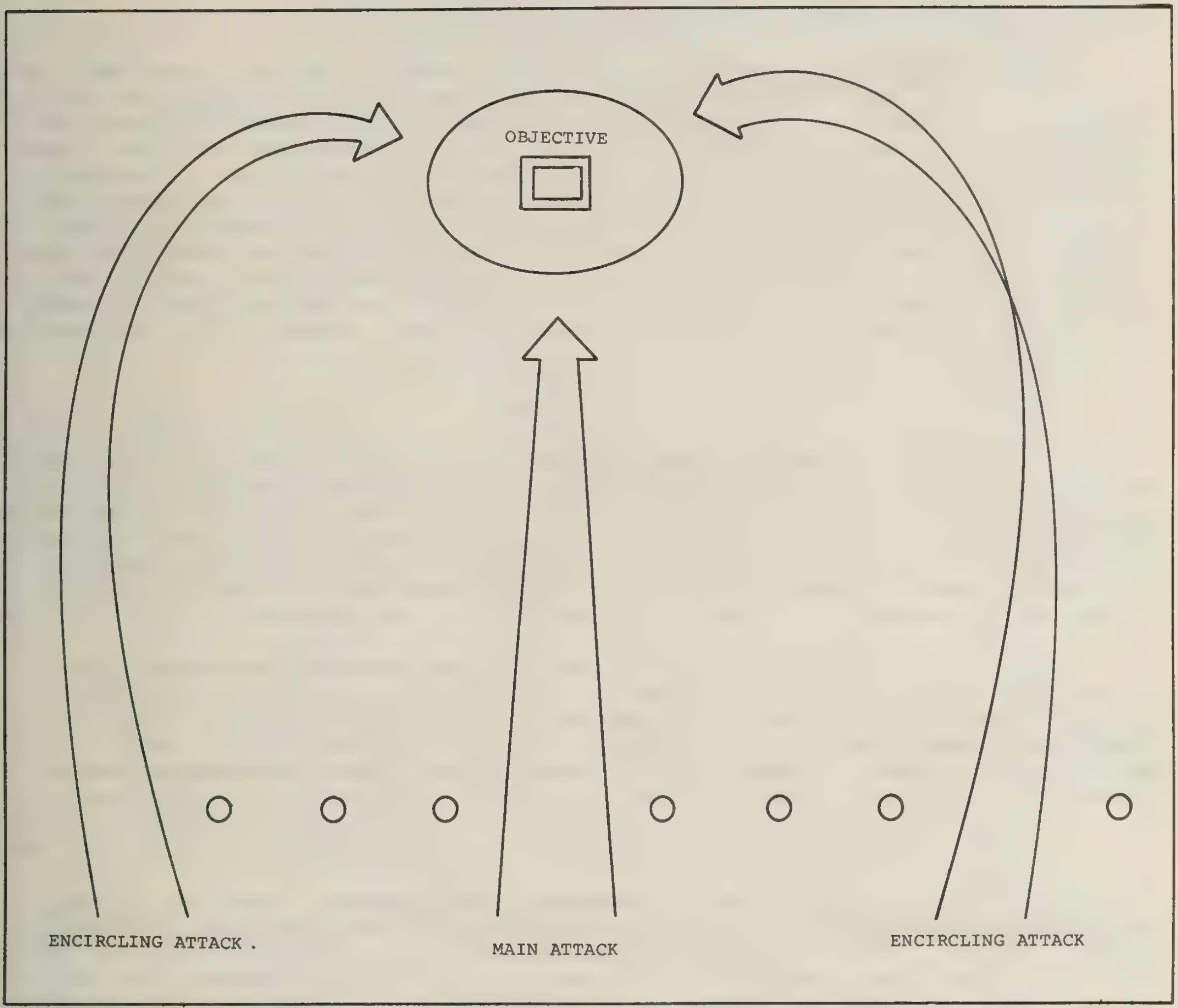


Figure 21.--Encirclement.

3305. USE OF FORMS OF MANEUVER

The determination of the form of maneuver to be used is based on an analysis of the mission of the force, characteristics of the area of operations, disposition of opposing forces, and the relative combat power of the opposing forces. Normally, terrain characteristics, time available, own disposition, ability to support the attack, and the enemy situation are the principal factors involved. Forms of maneuver are applied in the planning process and also when analyzing a past operation.

a. Planning.--When the forms of maneuver are used as an aid to planning the scheme of maneuver, they suggest to the commander and his staff the most efficient method by which maneuver can amplify the potential combat power of the unit. The tactical purpose sought by the commander determines the form of maneuver to be used.

b. Observed Form of Maneuver.--An operation can be classified and recorded as the use of one of the forms of maneuver. This recorded observation may not bear any relation to the intent of the commander when he originally announced his scheme of maneuver. The commander who can foresee the course of battle in the greatest detail is usually the commander who has the greatest success. The course of battle offers the commander an opportunity to observe and relate his observations to maneuver. For example, a commander may plan a frontal attack, but due to enemy reaction, he finds that he can cut the enemy escape routes and destroy him in position by causing him to fight simultaneously in two directions. At this time, he should modify his plan and conduct an envelopment with the resources available to him.

3306. PREPARATION FOR OFFENSIVE OPERATIONS

a. General.--The regimental plan of attack is based upon the regimental commander's estimate of the situation. He must complete his planning with speed and efficiency in order to avoid delay, which may increase the vulnerability of his subordinate elements, and provide ample time for the subordinate unit commanders to accomplish planning and preparations. If time for reconnaissance is limited, concurrent reconnaissance is conducted by commanders at all echelons within the regiment.

b. Troop Leading Steps.--Standard troop leading steps are a dependable means by which the regimental commander can ensure that the plans for an operation are developed efficiently and speedily. Each combat engagement has its own peculiar characteristics. While the practice of following routine troop leading steps does not ensure the success of an attack, ignoring them increases the chances of failure.

c. Plan of Attack

(1) General.--The regimental plan of attack consists of the scheme of maneuver and the plan of supporting fires. (See par. 2207d.)

(2) Development.--In developing the plan of attack, the regimental commander ensures that the plan of attack is logistically supportable and that means of communication are adequate by accomplishing the following steps:

(a) Determines Combat Service Support.--In evolving the plan of attack, the regimental commander considers the impact of combat service support on the operation. Although the details in planning will be accomplished by staff members, the commander ensures that adequate supplies are available and that supply, evacuation, and medical service support plans are complete.

(b) Analyzes Communications

1 To control the attack, the regimental commander will plan for and ensure adequate communications with higher, lower, adjacent, attached, and supporting units. A constant flow of information to and from these units enables him to make changes in the plan of attack and issue timely orders.

2 In a daylight attack, to include a mechanized attack, radio is a principal means of communication. However, within the means and time available, wire is installed to facilitate communications. Wire may be installed prior to the attack for use during periods of radio silence in assembly areas and in the early stages of an attack.

3 Although radio may be the primary means of communication, for secrecy and surprise, its use may be restricted until a prescribed time. Radio emission control is not carried to the point of making it a handicap rather than a protection. When it is probable that the enemy knows the location or anticipates the movement of friendly units, or after contact is made, little can be gained by continuing emission control.

4 For additional information, see paragraph 1302 and FMFM 10-1, Communications.

(c) Plans Actions in the Objective Area.--The commander makes tentative plans for consolidation, reorganization, dispersion, and employment following seizure of the objective. Rapid dispersal is required. Dispersed positions must provide for defense of the objectives and facilitate resumption of the attack. Regimental guidance regarding actions in the objective area may be in the form of a defense order, a phase line which limits the advance, or a contingency mission.

d. Scheme of Maneuver

(1) General.--The scheme of maneuver is the regimental commander's plan for employing his units to accomplish the assigned mission. The maneuver elements of the regiment are the infantry battalions.

(2) Development.--In developing the scheme of maneuver, the commander, assisted by his staff, accomplishes the following steps:

(a) Analyzes the Mission and All Available Information.--The first step in developing a scheme of maneuver is a thorough analysis of the regimental mission and all available information about weather, terrain, and friendly and enemy forces. The commander must study his order to ensure he understands all tasks to be performed.

(b) Selects Objectives That Assist in the Accomplishment of the Mission.--The division commander normally assigns objectives to the regiment which can be related to specific terrain features or areas. However, when mission type orders are issued, the physical objective may be enemy forces or installations.

1 The determination of additional or intermediate objectives is a basic consideration in arriving at the regimental scheme of maneuver. Intermediate objectives are selected and assigned to subordinate units of the regiment when required for control. The following are examples of intermediate objectives:

a Terrain features upon which prolonged and difficult combat is anticipated, indicating a need for a period of reorganization prior to the seizure of final objectives.

b Terrain features from which it is planned to launch a coordinated attack.

c Terrain features which dominate the entire regimental zone or a major portion of it, and which, if occupied by the enemy, would interfere with the progress of the attack.

d Terrain features whose seizure will provide security for the movement of the regiment along an axis or route of advance.

e Terrain features which facilitate control in areas where observation is limited or where for any other reason difficulty in control can be anticipated.

2 The number of objectives is limited to the minimum necessary to carry out the regimental plan of attack and depends on many factors such as organization, strength, location of enemy forces, etc. Objectives should be easily recognized, provide for a convergence of effort, and facilitate future operations. The seizure of an objective should not result in the loss of momentum of the regimental attack. When an intermediate objective has been seized, and in the absence of further orders, the subordinate units, as well as the regiment, continue the attack to seize the assigned objective. In this connection, the regimental commander should provide for action to be taken by subordinate units after they seize the final objective assigned.

(c) Selects Approaches to Key Terrain.--Terrain is the framework over which the scheme of maneuver is laid. Once objectives have been selected, the commander's primary concern is to consider the relationship of terrain features, one to the other, and to the decisive objectives. In selecting a route to the decisive terrain features, or to the assigned objectives, the commander selects avenues of approach which provide adequate maneuver room and make maximum use of cover and concealment, while allowing for ease of movement for the attacking elements.

1 Every possible avenue or approach is analyzed in the estimate, considering primarily its use by a main attack. Although the commander prefers to select the most desirable approach (from a terrain point of view) for use by his main attack force, he may select a less than desirable approach in order to gain an advantage by surprise.

2 Terrain is the greatest single factor derogating mobility. Modern warfare, whether conventional or unconventional, requires a degree of mobility, heretofore desired but unattainable. An aggressive commander will seek to make use of terrain previously considered impassable in order to surprise the enemy. By taking advantage of the helicopter to lift combat elements over impassable obstacles, or by using amphibious/mechanized assets to the fullest, the commander may be able to reduce his own vulnerabilities, and multiply his relative combat power. The commander must recognize the capabilities and limitations of all his means of mobility and employ them to the maximum benefit.

3 Helicopterborne/mechanized units generally have excellent mobility and are able to project combat power over wider ranges of the battlefield. However, the sustained fighting ability of these units is dependent upon the flow of logistic support. If the terrain and enemy situation permit, the use of existing road networks will enhance the fighting power of highly mobile fighting forces by allowing them to sustain their combat operations. However, terrain should not be considered an absolute

limiting factor; for the proper employment of amphibious means, the helicopter and fixed-wing transport aircraft can often overcome terrain deficiencies. It is axiomatic that the mobility of any force is limited to the mobility of its logistic support. To properly accomplish this mission, the commander must effectively utilize terrain; to gain maximum mobility, he must ensure continued and aggressive logistic support.

(d) Organizes for the Attack.--Based on the key terrain, the available approaches to the objective, and the analysis of courses of action in his estimate, the commander normally determines and designates a main and supporting attack(s). When two approaches offer equal opportunities, the commander may not plan main and supporting attacks but may plan means for weighting either attack according to the situation that develops.

1 Main Attack.--The main attack is directed toward the key terrain or that area which best facilitates the accomplishment of the regimental mission. First priority in allocation of combat power is given to the main attack. The main attack force may be weighted by placement of attached and supporting units, by the allocation of fires, and by positioning the reserve to facilitate its employment in the area of the main attack.

2 Supporting Attack.--When a supporting attack is used, it is planned to assist the main attack. The commander allocates the minimum necessary combat power to the supporting attack. This may deceive the enemy as to the location of the main attack, seize terrain which facilitates the maneuver of the main attack, contain the enemy in an area, or induce the enemy to dissipate his combat power outside the decisive area. If the supporting attack becomes more successful than the main attack, it may become the main attack. Because of terrain conditions and enemy defenses, a commander may plan to have a unit make the main attack initially until a certain condition is created or a certain area is reached, then convert a supporting attack to the main attack.

3 Reserve.--Concurrent with a determination of the size and use of the main and supporting attacks, the commander considers the size and use of the reserve. The reserve consists of all uncommitted maneuver elements and is constituted to provide flexibility, security, and a means to influence the action. On occasion, the reserve may include nuclear fires. The reserve is used primarily to facilitate accomplishment of the regimental mission, to deal with unforeseen contingencies, and to exploit success. In the offense, the reserve remains dispersed, and it is located to facilitate its rapid movement to points of probable employment. It is normally positioned to favor the main attack, to provide security to the command, or to take advantage of available protection against hostile observation and fire. Its missions include:

a An attack to exploit an enemy weakness or friendly success.

b An attack from a new direction on an enemy position which, because of its strength, has halted or threatens to halt the advance of the attacking echelon.

c An operation against the hostile rear area to extend or exploit an envelopment or exploit a successful penetration.

d The assumption of the mission of an attacking element that has become disorganized, depleted, or for any reason has been rendered ineffective.

e The reduction of enemy resistance that may have been bypassed by the attacking echelon or that may subsequently develop to extend or exploit an envelopment or exploit a successful penetration.

f The protection of the regimental flanks and rear.

g The provision of the force necessary to capture a final objective.

h The assistance of adjacent units when such action favors the accomplishment of the battalion or regimental mission.

i Ex ceptionally, part of the reserve may be employed to maintain contact with adjacent units.

j The defeating of enemy counterattacks.

(e) Determines Forces Necessary to Seize Objectives.--In determining the main and supporting attacks and their objectives, the commander considers the amount of force which will be required to seize and control these objectives. He analyzes the friendly and enemy capabilities and the terrain, and tentatively establishes whether one or more battalions are required for seizure of the regiment's final objective. He evaluates his total combat capability, to include fire support and maneuver elements. Concurrently, he considers the possible need for attaching fire support or maneuver elements to units which will seize objectives. These are steps in establishing the organization for combat.

(f) Determines Organization for Combat.--Battalions are tailored to give them the combat capability necessary to accomplish the mission assigned. This may include attachment of one or more combat and combat support units. The regimental commander, as a result of his estimate and the recommendations of his staff, requests necessary additional support and forces, designates command relationships, and establishes a task organization necessary to accomplish the mission(s).

(g) Determines Formations

1 There are three basic attack formations for an infantry regiment:

a One battalion in attack, two in reserve.

b Two battalions in attack, one in reserve.

c Three battalions in attack, a portion of one battalion or a provisional unit in reserve.

2 Since the factors governing the selection of a formation may vary during the conduct of the attack, the regimental scheme of maneuver should be sufficiently flexible to permit changes in the formation. The principle governing factors are:

a Mission of the regiment.

b Terrain.

c Strength, composition, combat effectiveness, and dispositions of the enemy.

d Strength and combat effectiveness of the regiment.

e Location and mission of other friendly units.

f Size of the zone of action.

3 The following conditions force the adoption of a formation with one battalion in the attack and two battalions in reserve:

a When the enemy situation is obscure and the regimental commander lacks the information necessary for effective employment of a larger force. In this situation, a minimum force is employed initially, allowing maximum freedom of action for employment of the remainder of the regiment when more information is acquired and as the action develops.

b When one battalion, with the requisite fire support, affords a substantial preponderance of combat power over the enemy on the initial objective.

c When the terrain in the regimental zone of action or tactical area of responsibility is such that one objective, which can be seized by a single battalion, affords adequate control of the zone or area.

d When the width of the usable portion of the regimental zone of action is comparatively narrow or is lacking in maneuver space.

e When the initial attack may be launched on a narrow front, thus permitting subsequent exploitations by a large reserve.

f When the enemy has a tactical nuclear capability or has employed nuclear weapons and the zone of action or area does not permit adequate dispersion of subordinate elements.

4 The following conditions favor the adoption of a formation with two battalions in the attack and one battalion in reserve:

a When the size or shape of terrain features assigned as initial objectives requires an attack by two battalions to seize all of these objectives.

b When the estimated strength and composition of the enemy force, his combat effectiveness, and his dispositions are such that a two-battalion attack is necessary to provide a preponderance of combat power.

c When a zone of action has appropriate objectives for two battalions and is wide enough for the required maneuver of the battalions.

5 The adoption of a formation with three battalions is considered exceptional. An initial attack formation with three battalions abreast deprives the regimental commander of flexibility. Some of the situations and conditions which may indicate that this formation is necessary are as follows:

a When the mission requires the seizure of a limited objective which is sufficiently strong or extensive to justify the employment of the bulk of the regiment.

b When the terrain of the objective is such that it cannot be dominated by seizing portions of it with two battalions.

c When the zone of action or tactical area of responsibility is extremely wide and requires the assignment of initial objectives separated by extensive intervening terrain areas.

d When a wide objective must be cleared in the least possible time.

6 The regimental reserve, if otherwise uncommitted, moves on order to successive positions. It is located so as to expedite the accomplishment of its assigned missions and normally is in a position calculated to favor the main attack.

(h) Determines Tactical Control Measures.--The regimental commander employs the minimum control measures required to ensure that the operation progresses according to his plan. These measures are discussed below and some are contained as examples in figure 22.

1 Objectives.--An objective is a control measure which designates a terrain feature, enemy force, or installation that must be seized or controlled. Objectives are designated to ensure the accomplishment of the mission, facilitate future operations, facilitate the destruction of the enemy, deny critical terrain to the enemy, and enhance the security of the command.

2 Zone of Action.--A zone of action is a tactical subdivision of a large area, the responsibility for which is assigned to a tactical unit; generally applied to offensive action. Normally, it is the terrain between two boundaries with the forward and rearward limits of the boundaries specifying the limits of the zone. A zone of action should include adequate approaches to objectives and be sufficiently large to allow for the necessary degree of maneuver or dispersion. If the zone is to be completely cleared of enemy, it must be so directed.

3 Direction of Attack.--A specific direction or route which the main attack or center of mass of the unit will follow. The unit is restricted and required to attack as indicated and is not normally allowed to bypass the enemy. The direction of attack is used primarily in counterattacks, night attacks, or to ensure that supporting attacks make maximum contribution to the main attack.

4 Axis of Advance

a An axis of advance is a line of advance assigned for purposes of control; often a road or a group of roads, or a designated

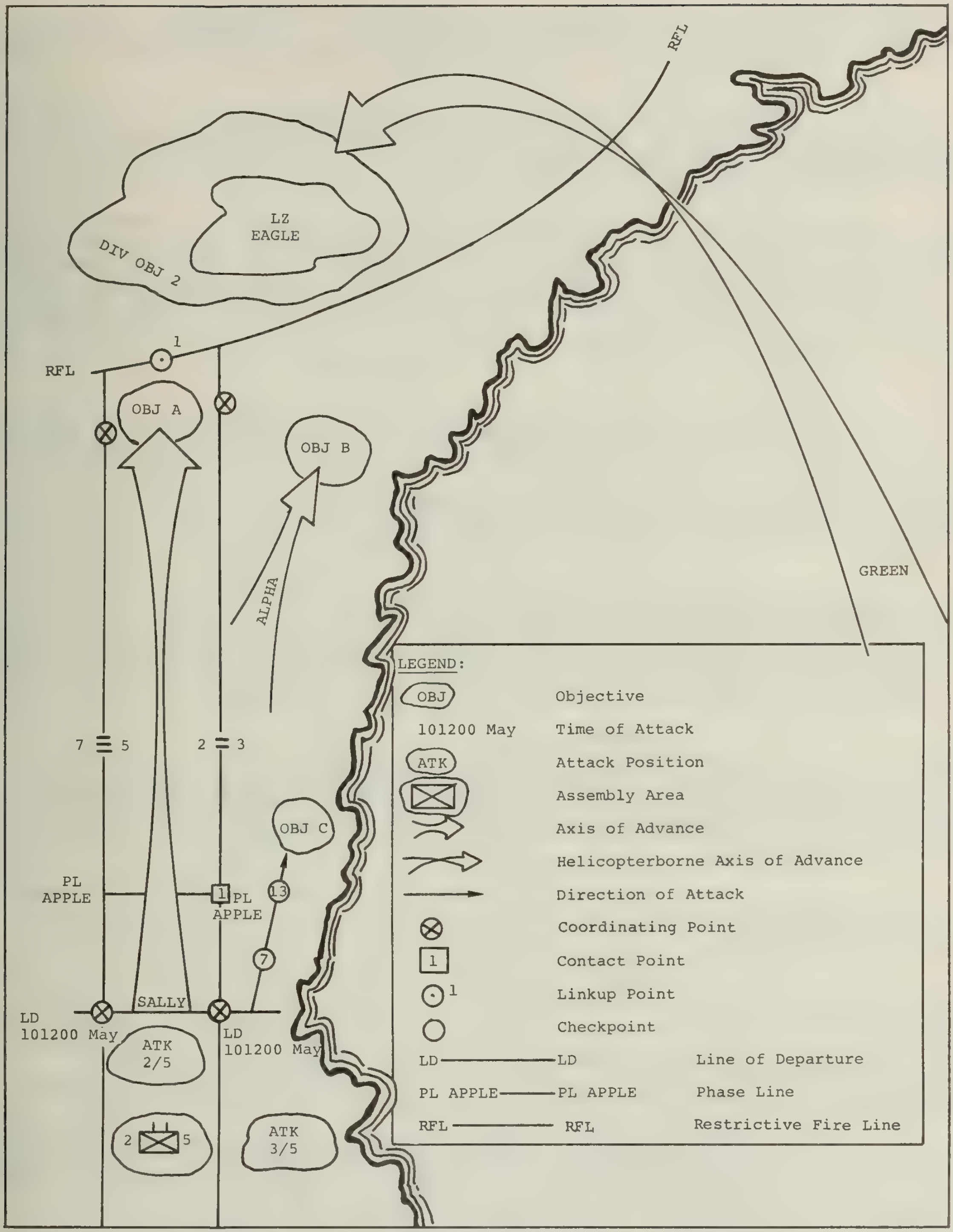


Figure 22.--Tactical Control Measures That May be Employed by the Infantry Regiment in the Attack.

series of lcoations, extending in the direction of the enemy. When the regiment is operating on an axis of advance, it may bypass an enemy force if that force cannot prevent the accomplishment of its mission.

b If maximum flexibility is paramount, a movement on one axis is usually indicated. Other factors which favor the use of a single axis of advance by the regiment include a limited road net, restricted terrain, and vague enemy situation.

c If the regiment uses two axes of advance, they should be sufficiently separated to ensure such parallel movement will not result in an undue concentration of the regiment. They should, however, be close enough to permit regimental units on each axis to maneuver in support of each other. No other than two axes of advance should be used. Factors which favor the use of two axes by the regiment include an adequate road net, need for speed, enemy capabilities, and the availability of adequate fire support.

5 Line of Departure.--A line of departure is used to coordinate the attack as to time and direction. It is usually located on the last available terrain which can be reached by the regiment without undue exposure to enemy observation and flat trajectory fire. It should be easy to recognize on the ground, approximately perpendicular to the direction of advance, and controlled by friendly units.

6 Time of Attack.--The time of attack is the time that leading elements of the assault forces executing the main and secondary attacks are to cross the line of departure, or when helicopters carrying initial assault elements (not reconnaissance elements) will touch down in landing zones. It may be a precise time, on prescribed signal, on order, or following the execution of a specified tactical action.

7 Assembly Areas.--An assembly area is a control measure used in preparation for combat operations. Even in a moving situation, an attack is best organized and coordinated in an assembly area. It is here that elements of the regiment can rest, prepare for combat, complete logistic preparations, organize, and accomplish final coordination and briefings.

8 Checkpoints.--Checkpoints are recognizable points on the ground which may be used to facilitate reporting information and for control purposes.

9 Phase Lines.--Phase lines may be used to control and coordinate the rate of advance or to provide a convenient system to report unit locations. They are located on easily recognized and tactically significant terrain. Phase lines may be identified by number, letter, or code designations. Unless directed to halt upon reaching a phase line, units merely report at that time and continue to advance.

10 Tactical Area of Responsibility.--A defined area of land for which responsibility is specifically assigned to the commander of the area as a measure for control of assigned forces and coordination of support. The commander of the force assigned the TAOR may conduct operations in any portion of it that he desires; however, he is required to seize and/or defend only those tactical localities that are designated as objectives. Assignment of a TAOR to a regiment is accompanied by

explicit instructions as to tasks to be accomplished therein, as well as instruction necessary to ensure coordination with the operations of other forces.

11 Boundaries.--A boundary separates areas of responsibility between units and should be located along easily recognizable terrain or cultural features. Future or proposed boundaries are shown by a broken line and labeled with the time they are to become effective.

12 Attack Positions.--The attack position is the last position occupied by the assault echelon before crossing the line of departure. Attack positions are normally selected by the unit commanders, are used to complete final preparations for combat, and are occupied for a minimum period.

13 Linkup Point

a A linkup point has primary application in the composite helicopterborne/surface-landed operation but may be used on other occasions as indicated by the situation.

b The linkup point or points are predesignated points on the ground where earliest contact between two forces is expected to take place. Alternate linkup points are established to make provision for unforeseen circumstances.

c Friendly fires must be coordinated in relation to the linkup point and adequate communications are provided to ensure that each force is kept abreast of the progress of the other. For an example of some of the coordination and control measures during contact and linkup between helicopterborne forces and ground units, see subparagraph 3310e(3).

14 Contact Point.--Contact points are numbered squares shown on maps or overlays. They are used to indicate the place where the commander desires subordinate units to make physical contact. Contact points may also be used to delineate areas of responsibility in specific localities where boundaries are obviously unsuitable; for example, between elements of a flank guard.

(i) Considers Alternate Plans.--The regimental commander considers what action the enemy might take to counter his attack, and he plans alternate actions to accomplish the mission if the primary plan fails.

3307. PHASES OF THE ATTACK

a. General.--Generally, on the regimental level, the attack is planned and executed in three phases: preparatory, conduct, and consolidation and reorganization. Subordinate elements often conduct different phases simultaneously; this requires close coordination and staff supervision by the regiment to ensure that the regimental concept of operations is carried out as planned.

b. Preparatory Phase.--During this phase, preliminary actions such as movement to assembly areas, resupply, and other associated operations are conducted.

c. Conduct Phase

(1) General

(a) The attack commences when the leading elements of the assault battalions cross the line of departure or touchdown in the landing zones. Once the attack is launched, flexibility and speed of execution are of paramount importance. An attack will seldom progress exactly as planned. Therefore, the regimental plan is executed vigorously, and all favorable developments are exploited. The attacking elements are not permitted to adhere blindly to a preconceived plan of action.

(b) When enemy resistance or unexpected obstacles slow the attack in one part of the zone, consideration is given to shifting the weight of the attack to exploit more favorable developments elsewhere. One or more battalions may advance more rapidly than others. This will result because an attack seldom encounters uniform resistance at all points. The regimental commander will not ordinarily stop or delay the progress of an attacking battalion merely to preserve an alignment or adhere to a previously prepared plan of attack.

(c) The regimental commander exploits to the fullest the flexibility and mobility of the battalions, particularly in utilizing opportunities that develop as the battle progresses. He keeps himself fully informed of the situation, continually revises his estimates of enemy capabilities, and prepares tentative plans to meet those capabilities. He may also influence the action by:

1 Altering his plan of supporting fires.

2 Changing the allocation of available supporting units.

3 Arranging for mutual assistance between attacking battalions and between his own and adjacent units.

4 Altering his scheme of maneuver.

5 Utilizing his reserve.

6 Increasing the influence of his personal leadership.

(d) When nuclear weapons are utilized in support of the regiment, consideration is given to the acceptable level of effects on friendly troops, obstacles that may be created by blast and secondary fires, and the hazards of induced radiation. The yield of weapons available and the means of mobility to rapidly exploit nuclear fires constitute the usage criteria during the conduct of the attack.

(2) Control.--The regimental commander must remain informed of the friendly and enemy situations in order to exercise control of the attack. He does this by frequent visits to subordinate units, by obtaining frequent reports from them, and through information received from the regimental staff, adjacent, and higher units. He plans his movements so that he can best control the action. He may choose to move to an observation post or he may accompany one of the attacking battalions.

He keeps the regimental executive officer informed of his location at all times. He ensures positive communications with his battalions, his command post, and necessary supporting units at all times. He requires reports from battalions when they employ their reserve and when assigned objectives, phase lines, and checkpoints have been reached. The regimental commander will recognize that conditions of modern warfare require greater flexibility and freedom of action on the part of subordinate commanders. These essential characteristics are provided through increased reliance on mission type orders and by placing minimum restrictions and control on the operations of battalion commanders. The details of the conduct of the assault are assigned to subordinate commanders and the regimental commander intervenes only when necessary to ensure coordination between units, to prevent the commission of serious errors, or to restore order in a disorganized situation.

(3) Employment of the Reserve

(a) The most effective employment of the regimental reserve ensures that it is committed at the proper time and place to ensure success. The missions which may be assigned the regimental reserve include exploitation of a hostile weakness developed by the assault echelons, delivery of the final blow to bring the action to a successful conclusion, and replacement of an exhausted or disorganized element of the assault echelon. It may also be employed to provide protection for the rear or flanks of the regiment.

(b) The most profitable use of the regimental reserve is in exploiting success. The probability of success in the area of the main attack tends to favor initial location of the reserve where it can best influence that effort. The reserve must be able, however, to move to any other area within the zone of action if the situation so dictates. Whenever possible, the reserve should be located in an area that affords concealment from hostile observation, cover from aimed or observed fire, and protection against air or mechanized attacks. As the attack progresses, planning for the employment of the reserve is continuous and changes in location are ordered by the regimental commander to facilitate future employment. The available means of mobility influence these locations. The helicopter is an ideal means of providing the necessary mobility for rapid movement of the reserve. To expedite changes in location and the execution of newly assigned missions, it is generally advisable for the commander of the regimental reserve to remain close to the regimental commander prior to commitment of the reserve.

(c) The regimental commander immediately notifies his superior when his reserve has been committed. Steps are taken to constitute a new reserve as quickly as the situation permits.

(4) Security Measures.--During the movement to the objective the regimental commander prescribes security measures to protect the regiment. Attached reconnaissance units or elements of the reserve battalion may operate in forward areas, to the flanks, or to the rear. Helicopters may be used in leapfrog movement of these elements from position to position. Attached vehicles may also be used to motorize these security detachments. Observation aircraft can be used to provide long-range security. Initially, reconnaissance elements may operate to the front until contact is developed.

(5) The Assault.--The attack may be a single rapid advance and assault until the regimental objective is seized, neutralized, destroyed, or overrun, or it may be a series of rapid advances and assaults to obtain the same results. Between areas of opposition, attacking forces move rapidly in a partly deployed formation. Infantry and tanks may move forward separately, together, or one may lead the other. Mechanized infantry may remain in their carriers or may move dismounted. As enemy resistance is encountered, the attacking echelons converge, closely following their supporting fires until they are within assaulting distance of the hostile position. If these fires have neutralized effective antitank opposition, the tanks normally lead the assault, overrun the objective, and take up positions on the perimeter from which they can observe while the following infantry mops up. If antitank opposition remains strong, the infantry leads the final assault with tanks supporting by direct fire until their fires are masked. Nuclear fires may make the conduct of an actual assault unnecessary or may greatly reduce the casualties which could be received during the assault. The assault is a short, well-coordinated effort which overruns and seizes the objective. Supporting fires continue to the last possible moment and then are shifted to the flanks and rear of the enemy position. Following the assault, attacking units disperse as rapidly as possible to preclude forming lucrative targets and continue the attack or prepare for operations.

d. Consolidation and Reorganization Phase.--The purpose of consolidation and reorganization is to prepare the attacking force for future action. When possible, the seizure of the objective should be followed by immediate continuation of the attack or exploitation of success obtained. Emphasis is placed on security, resupply, and reorganization. CONSOLIDATION AND REORGANIZATION SHOULD NEVER INTERFERE WITH MAINTAINING THE MOMENTUM OF THE ATTACK.

(1) Reorganization is continuous. Specific halts to reorganize are avoided because of the danger inherent in stopping or slowing the operation. Units which are halted to reorganize should be halted in areas which provide cover until reorganization is completed, if the situation permits. Reorganization includes redistribution of personnel, evacuation, resupply, and restoration of control and communications.

(2) Consolidation includes establishing security, taking reconnaissance measures, establishing or reestablishing contact with adjacent units, displacing weapons and installations, requesting fire support, and positioning units. The formation used to seize an objective generally determines the initial disposition of units employed in its defense. Even when ordered to defend an objective, the regimental commander maintains his command in a state of readiness to continue the attack. To aid in accomplishing this, he sends elements of his command beyond the objective to maintain contact with the enemy and, if practicable, to seize key terrain features which facilitate resumption of the attack.

3308. LINKUP OPERATIONS

a. General

(1) A linkup operation entails the juncture of two ground units. Such a juncture may occur in an amphibious operation when there is both waterborne assault and a helicopterborne assault, an attack using a ground element and a helicopter landed element, or during the relief of an isolated unit.

(2) The initial phase of a linkup operation is conducted as a normal offensive operation. As linkup becomes imminent, coordination and control are intensified, placing definite restrictions on the forces involved.

b. Planning.--Planning for the linkup must be timely. Plans of the forces involved in the linkup are coordinated in advance. Provisions are made for the prompt exchange of information between the two forces. The following are planning considerations of linkup operations:

(1) Command relationships and responsibilities.

(2) Command and staff liaison.

(3) Coordination of schemes of maneuver.

(4) Fire coordination measures.

(5) Coordination of communication plans.

(6) Actions following linkup.

c. Command Relationships and Responsibilities.--The headquarters directing the linkup establishes the command relationships and responsibilities of the two forces. The linked-up force (hereafter called the stationary force) can be attached to the force making the linkup (hereafter called the linkup force), or the linkup force can be attached to the stationary force, or both forces can come under or remain under control of a higher commander.

d. Command and Staff Liaison.--Command and staff liaison between the two forces is essential. This liaison is initially established during the planning phase and is continued throughout the operation. As linkup becomes imminent, additional liaison personnel are exchanged to represent leading units and their supporting artillery. In the event that the operation entails linkup with Allied forces, provisions must be made for interpreters or liaison officers with linguistic ability.

e. Coordination of Schemes of Maneuver.--Control measures are carefully delineated. Linkup points are selected where physical contact between the two forces will occur. These points are mutually agreed upon and should be recognizable to both forces. They are located where the routes of advance of the linkup force intersect the security elements of the stationary force. Alternate linkup points are established. Enemy action may force linkup to occur at places other than those planned. The number of linkup points established depends upon the capability of the stationary force, the number of routes being used by the linkup force, and nature of terrain and enemy threats to the operation. Troops manning the points, as well as the units contacting them, must be familiar with procedures for mutual identification and plans for the rapid passage of the advancing units. Assistance by the stationary force includes removing obstacles, providing guides, and reserving assembly areas for the reorganization of linkup forces.

f. Fire Coordination Measures.--Fire coordination measures are established by headquarters directing the operation. Neither force will deliver fires across the RFL established without prior clearance by the other. As linkup become imminent, the RFL is moved as close to the stationary force as possible to allow maximum freedom of action to the linkup force. The FSCL of the linkup force may be separate from the stationary force in the early stages. As linkup becomes imminent, a single FSCL encompasses both forces; airstrikes not controlled by a forward air controller in the area between the two forces must then be cleared by the linkup force and the stationary force. Upon linkup, and when recommended by the responsible commander concerned for fire support coordination, the FSCL is moved beyond the stationary force. The fire support coordination for the force as a whole must be clearly established; responsibility for such coordination is that of the designated commander, or of the force having primary interest in the operations following linkup. (See fig. 23.)

g. Coordination of Communication Plans.--The communication plans for the linkup operation include channels for radio communication between major units of the two forces. This requires an exchange of call signs, frequencies, and authentication procedures. Aircraft can be used to extend the range of communications or to deliver messages between the forces as linkup approaches. The communication plans also prescribe positive identification procedures for use during daylight and darkness. Pyrotechnics, colored smoke, and panels are used during daylight; and pyrotechnics, infrared devices, and flashing lights are used during darkness. Armbands, vehicle markings, arm-and-hand signals, and passwords are helpful.

h. Actions to be Taken Following Linkup

(1) Upon linkup with the stationary force, the linkup force may reinforce or assume the defense of the area, continue the attack in coordination with the stationary force, or pass through or around the stationary force and continue the attack to more distant objectives. Provisions are made for relief in place or passage of lines as required. Since nuclear vulnerability is increased as linkup occurs, particularly during the period when the linkup force is passing through the stationary force, provisions for reducing the period of vulnerability or the density of troops and equipment in the area must be included in the plans. Therefore, it is desirable that the linkup force pass around the stationary force. Its objectives should be located well outside the area occupied by the stationary force.

(2) In the case of a linkup operation involving the breakout of an encircled force, the linkup force (the force breaking out) rapidly passes through the forward defense area of the stationary force to assembly areas in the rear. To speed passage and reduce the period of nuclear vulnerability, multiple routes are provided and suitable priority accorded elements of the linkup force during movement to their assembly areas.

(3) When two moving forces link up, normally only boundaries and fire coordination control measures are prescribed and the units continue on their assigned missions.

3309. NIGHT COMBAT

a. General

(1) Night combat is an inherent part of all operations. Operations involving movement, attack, exploitation, and defense at night are conducted as routine requirements. Because of the difficulty of control, a regimental night attack is essentially a series of separate battalion actions.

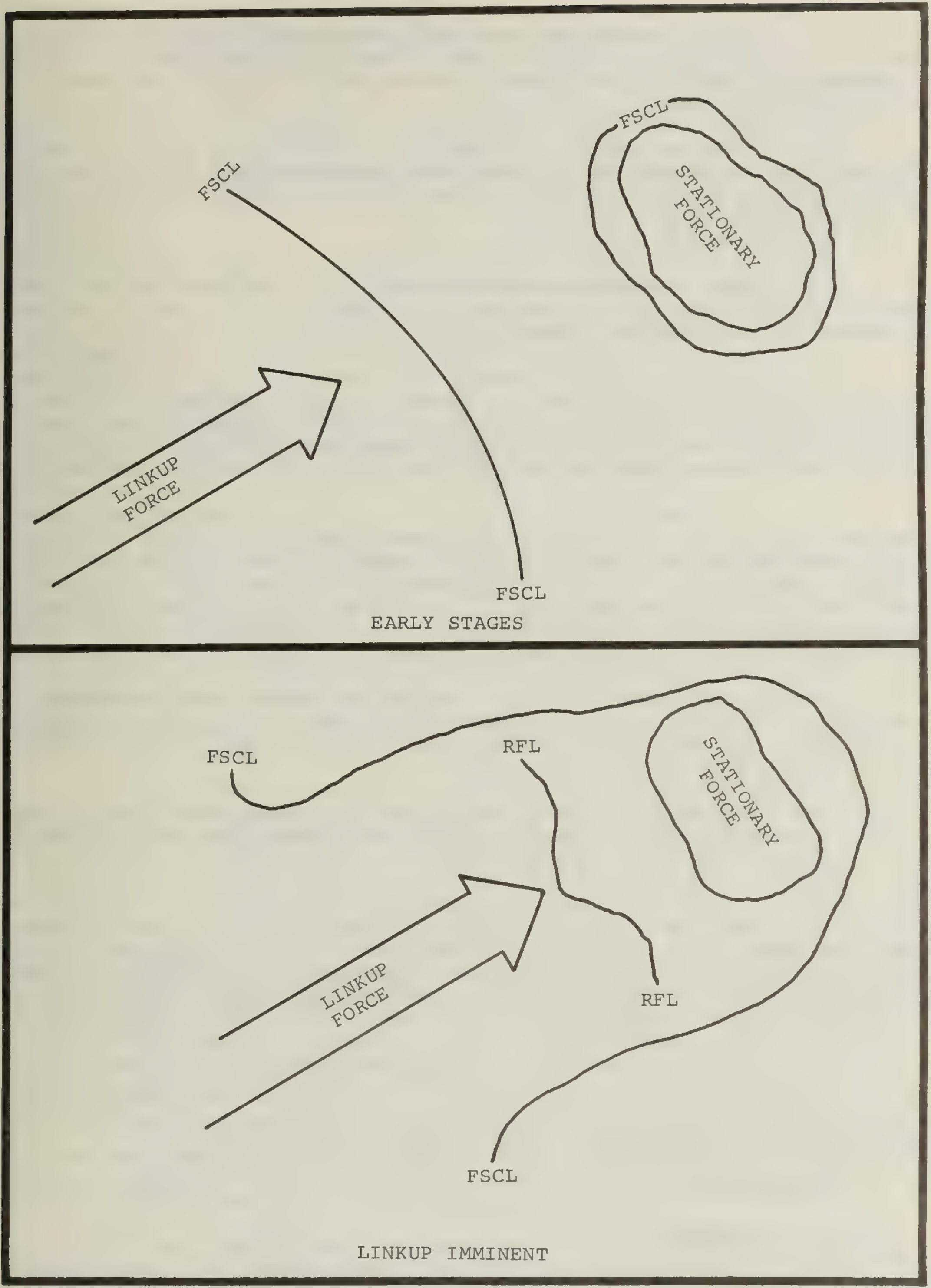


Figure 23.--Fire Coordination Measures in Linkup Operations.

(2) Night operations which achieve surprise may offer opportunities for success when daylight operations are impracticable. Continuous pressure applied day and night, particularly against a weakening enemy, hastens his defeat.

(3) Troop movements, concentration of forces prior to the attack, and conduct of an attack which may be impossible during daylight may be executed in darkness with minimum risk.

b. Basic Considerations

(1) Night combat is characterized by a decrease in the effectiveness of aimed fire and corresponding increase in the importance of close combat and supporting fires.

(2) Morale of both friendly and enemy troops is highly sensitive to physical and psychological factors. Reverses and failures at night generally affect troops more than the same reverses or failures would in daylight. Well-trained troops, confident of their ability to fight at night, can use these psychological factors to their advantage.

(3) Darkness increases the difficulties involved in movement, maintenance of direction, and control. More time is required to execute movements and emplace weapons at night. Simple schemes of maneuver with well-defined objectives and easily identifiable routes will facilitate and simplify control. Leaders must take positions well forward with attacking echelons. Full use is made of aids to navigation which will assist in maintaining the correct direction.

(4) ALL COMMANDERS MUST PRECEDE THE ATTACK WITH DETAILED RECONNAISSANCE. They should also personally observe, during daylight, terrain over which their units will move in order to fix terrain features which will aid maintenance of direction.

(5) Coordination of nuclear fires with maneuver is difficult at night. Darkness increases troop safety considerations because of dazzle. Obstacles created by nuclear fires are difficult to traverse at night.

(6) Nuclear weapons employed by the enemy may have an adverse effect on the vision of attacking or defending troops rendering them ineffective for appreciable periods. Fires created by nuclear weapons may assist in identification of objectives and maintaining direction but may also silhouette forces on either side.

(7) All combat and combat support units can be used at night. The effectiveness of armor is increased by the use of illumination, including tank-mounted infrared devices and searchlights. Illumination also assists in the adjustment of artillery fire.

c. Night Attack

(1) General

(a) The same considerations pertaining to planning, preparation, and conduct of attacks during daylight apply to attacks at night. The same forms of maneuver may be used. Night attack plans, however, are usually less flexible than those of daylight attacks.

(b) The regiment attacks at night to:

1 Continue an attack started in daylight.

2 Achieve surprise and psychological superiority.

3 Gain important terrain for further operations.

4 Use concealment afforded by darkness in order to avoid heavy losses.

5 Exploit previous successes.

6 Compensate for reduced capability of friendly air and armor support.

(2) Planning

(a) The procedures involved in planning attacks at night are the same as for daylight attacks. The items discussed herein are included for emphasis.

(b) It is essential that a decision to make a night attack be made sufficiently in advance to provide time for exacting reconnaissance, detailed planning, and coordination. The use of warning and fragmentary orders is a normal practice and concurrent planning is habitual. Successful attacks can rarely be made at night on an impromptu basis, because the risks are increased tenfold, and the chances for failure are much greater. However, attacks in progress are not usually discontinued merely because of nightfall. Attacks which are underway should be continued through the night, unless orders are received which direct otherwise.

(c) Concepts for night attacks emphasize simplicity, and they are planned with strict attention to detail. The scheme of maneuver, fire support plan, and control measures are carefully specified.

(d) If a night attack is launched in order to seize favorable terrain for a succeeding daylight attack, it is usually launched during the final hours of darkness. This choice of time has an advantage in that it does not give the enemy sufficient time to interfere with the subsequent attack. However, attacks launched during early darkness permit the attacker to take maximum advantage of a long period of darkness and thereby exploit the enemy's confusion and loss of control. Night attacks may be initiated during daylight. Infiltration may be employed at night followed up by other methods of attack at daylight or during remaining darkness.

(e) Secrecy is stressed during preparations for the attack. Reconnaissance, noise, light and troop movements are carefully controlled. Deception measures should include masking noises (e.g., artillery) to cover the movement of vehicles.

(f) Although it is desirable that night attacks be made with fresh troops, the paramount consideration is that the attacking troops be as familiar as possible with the terrain over which they will attack.

(g) A rehearsal of the attack should be conducted over similar terrain and under similar conditions of light.

(3) Coordination and Control

(a) Highly restrictive control measures are used to prevent collisions between attacking units. As a minimum, control measures such as objectives, limits of advance, lines of departure, boundaries, and phase lines are used. Directions of attack are frequently assigned.

(b) Battlefield illumination assists in movement and control. It enables a command to seize deeper objectives than otherwise possible.

(c) Limits of advance, beyond which attacking troops will not proceed unless specifically instructed, are assigned. The limit of advance provides for the control of maneuver elements, troop safety of attacking units, and freedom for artillery and other fire support means to attack targets beyond that line.

(d) Provisions are made for indicating direction by firing tracer, incendiaries, use of infrared devices, or by other means.

(e) Provisions are made for mutual identification of troops.

(4) Battlefield Illumination

(a) The principal requirement for battlefield illumination is to overcome the limitations imposed on friendly forces by the absence of light. The requirements for battlefield illumination originate with those of an individual, a patrol, or a squad and may progress in increasing magnitude to the requirements for units and formations.

(b) The following principles govern the use of battlefield illumination:

1 The use of battlefield illumination is a command responsibility.

2 Battlefield illumination in support of friendly forces should be provided wherever and whenever needed, in the intensity of illumination required, and throughout the period of time required.

3 Battlefield illumination should, wherever possible, be provided by an independent source of illumination, so as to allow units the full use of their weapons.

4 Illumination should be provided by the highest level practicable in order to conserve the illuminants available to lower echelons.

5 Each ground unit engaged in combat which has a specific need for illumination should have organic means, in accordance with its specific requirements for illumination, sufficient to accomplish the illumination mission or to maintain the required illumination until the illumination mission can be taken over by a higher echelon.

6 Alternative means of illumination should be provided, if available.

7 All battlefield illumination must be coordinated to prevent disclosure to the enemy of the operations of adjacent units. Coordination will normally be accomplished by the commanders having operational control of the illumination means and may necessitate restrictions being placed on the unit organic means.

8 Once artificial daylight is provided to supported troops, it should be provided without interruption until the need for illumination is satisfied. This type of illumination completely eliminates night vision and if interrupted would render supported troops incapable of seeing until night vision is restored.

9 The habitual use of battlefield illumination under any given set of circumstances (e.g., a limited attack or similar maneuver) may tend to reveal prematurely the intention of friendly forces. Care must, therefore, be exercised to prevent establishing a set pattern of operational procedures. Conversely, the use of illumination techniques as part of a deception plan may be profitable on occasion.

10 Battlefield illumination should be planned and coordinated with the use of infrared equipment in such a way that:

a No damage will be caused to the infrared equipment by exposure to direct intense white light.

b Battlefield illumination will be avoided or reduced to an absolute minimum when infrared operations are going on.

c The most suitable means (battlefield illumination or infrared light) will be used according to the situation.

d A rapid change from infrared light to battlefield illumination (or vice versa) can be performed.

(c) Coordination is accomplished at all echelons to ensure, on the one hand, integration of battlefield illumination with fire support means and, on the other, coordination of the use of all means of illumination. An illumination plan is:

1 Prepared by the fire support coordination center and/or coordinated at the highest level affected.

2 Based upon requests of supported units of formations or as directed by higher echelon.

3 Published as an appendix to the unit fire support plan.

(5) Fire Support

(a) In determining whether a preparation will be fired, the probable damage effects are weighed against the effect of greater surprise which would result from an attack by stealth. If a preparation is not fired, on call fires are planned to be used in the event surprise is lost.

(b) In addition to normal fires, fires are planned to cover the withdrawal of the attacking force and, if possible, to isolate the areas of the attack.

(c) Normally, on call nuclear fires are not used because of the difficulty of achieving troop safety. When on call nuclear fires are used, normal troop safety warnings are augmented to ensure protection against dazzle.

(6) Conduct of the Attack

(a) Simple formations are used at all echelons. Movement in column formation is continued as long as possible and deployment occurs at the last possible moment. Each attacking unit is given a definite direction and objective. Contact is maintained between columns and every precaution is taken to prevent their collision.

(b) Enemy sentinels and listening posts are quietly and rapidly silenced. Infiltrators may attack command and communication installations to decrease and confuse enemy reaction, at a time coordinated with the main attack. Attacks on enemy reserves and fire support means further confuse his efforts.

(c) Leaders take positions with forward elements where they lead the rapid and aggressive movements of their units, maintain correct direction, avoid collision, and coordinate their operations with other units and with fire support agencies.

(d) The regimental reserve is located in positions which will enable it to exploit success, replace a unit in the attack, or cover a withdrawal. At night, the reserve is committed only in an area where the possibility of collision with friendly troops is remote.

3310. INFILTRATION

a. General

(1) Infiltration is a technique of movement used in conjunction with offensive operations. The regiment can attack by infiltration or use infiltration as a means to obtain intelligence and to harass the enemy. Movement by this method is usually restricted to use by small units.

(2) Because of the interspersed deployment of friendly and enemy units during infiltration, the nuclear vulnerability of both is high and use of nuclear weapons is normally precluded.

(3) Attack by infiltration may permit the destruction of enemy units and installations without recourse to nuclear fires and may curtail the enemy's use of nuclear fires because of the absence of remunerative targets.

b. Basic Considerations

(1) Detailed planning is essential and the personnel involved are carefully briefed. The movement by stealth through enemy positions and the assembly of infiltrating groups prior to decisive action may be slow. The use of helicopterborne units can increase the rate of movement considerably.

(2) The elements conducting movement by infiltration can be aided by the use of terrain which limits the enemy's observation and surveillance of the routes to be used. Woods, swamps, and broken ground are examples of areas which are suited to infiltration. Within an area of infiltration, routes which are suitable for the movement of small groups are selected by the infiltrating unit. In contrast to other offensive action, avenues of approach in the traditional sense are not used. Frequently, the avoidance of the best avenues of approach increases the probability of success. Conditions of reduced visibility such as darkness, fog, and falling snow assist in accomplishing an undetected infiltration. Such conditions, however, can be expected to cause an alert enemy to increase his surveillance.

3311. EMPLOYMENT OF HELICOPTER SUPPORT

a. General

(1) The regiment may be landed by helicopter to seize relatively deep objectives when supported by a flexible and responsive system of supporting fires and close air support.

(2) Heavy reliance is placed upon helicopter support to provide the requisite mobility for operations of the regiment within its zone of action or TAOR. Helicopters contribute to the mobility of the regiment through the capability to lift security detachments and surveillance elements as well as subordinate units being committed to action. In some instances, selected elements of the regiment may move by helicopter while remaining elements execute a surface movement. Helicopters may also be utilized for other tasks such as liaison, communication, reconnaissance and surveillance, and positioning of fire support units to support the attack.

(3) Helicopters greatly increase the flexibility of the infantry regiment in offensive operations. They are well suited for the performance of missions involving deep envelopments, turning movements, exploitations, and pursuits. During these operations, helicopters increase the effects of surprise and speed of execution.

(4) Figure 24 illustrates the employment of a helicopterborne attack.

b. Influence on Maneuver

(1) Envelopments.--Surprise plays a dominant role in the successful execution of envelopments. The regiment achieves surprise by taking advantage of the helicopter's speed and the capability it provides for bypassing enemy resistance and overcoming difficult terrain. The regiment accomplishes helicopterborne envelopments by employing one or more of its battalions in conjunction with surface attacks by the remainder of the regiment. These envelopments should be executed within supporting distance of other elements of the regiment. When the regiment or its battalion(s) is/are assigned a helicopterborne mission beyond supporting distance, such as in an encirclement or turning movement, appropriate reinforcements must be provided and plans prepared for linkup by other forces as the action progresses. Sufficient close air support must be provided to compensate for the initial inability of ground units to deliver fires in support.

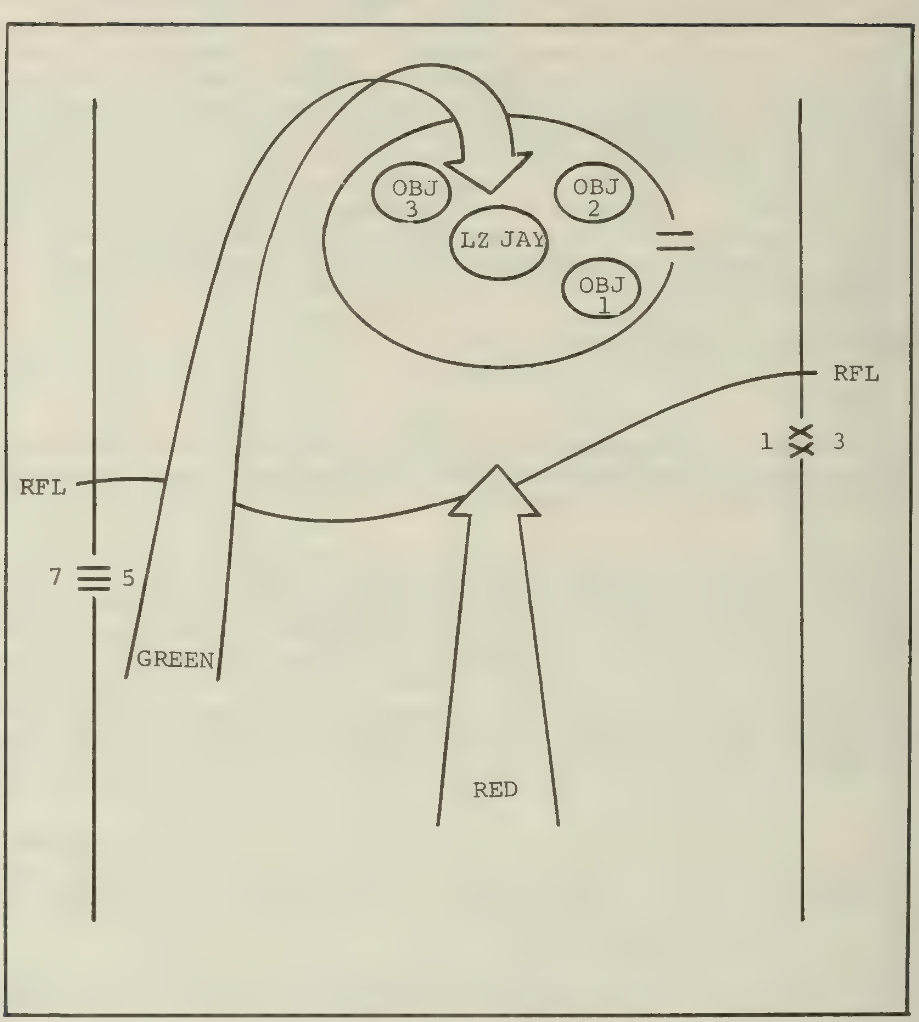


Figure 24.--Helicopterborne Force in the Attack.

(2) The Penetration.--In a penetration, helicopters are used primarily to transport regimental elements to assembly areas or attack positions. The regiment may also employ helicopters to move its units rapidly in order to widen the gap and deepen the penetration, and to land helicopterborne forces in the enemy's rear for the purpose of rupturing his position from the rear.

(3) Exploitation and Pursuit.--Helicopters are highly suitable for use in the preparation for and conduct of exploitation and pursuit. They are particularly valuable for reconnaissance and security missions and in maintaining continuity of the pursuit. They may be used to lift either the direct pressure or the enveloping force.

c. Employment of Helicopters in a Night Attack

(1) Helicopterborne elements of the regiment may be employed in night attacks, either separately or in conjunction with surface forces. The ability to move units rapidly from distant assembly areas by helicopter greatly enhances secrecy in preparing for the attack and increases the surprise and shock effect that can be gained.

(2) The regimental commander may employ helicopters to land assault troops directly on the objective or to position assault units at an attack position.

(3) The plan for employment of helicopters in support of the regiment conducting a night attack hinges on the state of existing and forecast weather at the objective. Other factors to be considered are discussed below:

(a) Early Night Attacks.--If the mission assigned the regiment requires seizure of the objective as soon as possible after nightfall, it may be possible to make the helicopter approach during daylight with touchdown of the first wave occurring at dusk. If preparation of the target area is not used, reconnaissance elements would be positioned at or near the objective to act as terminal guidance units.

(b) Late Night Attacks.--If the regiment plans to attack late at night in preparation for subsequent daylight operations, employment of helicopters may depend upon the ability to position navigational aids for the approach and landings. Terminal guidance personnel or specially trained helicopterborne advance parties may be used to install the necessary navigational aids prior to landing the assault echelon.

1 The nature of the terrain and degree of darkness are also determining factors in predawn helicopter operations. Bright moonlight and easily recognizable terrain features simplify navigational problems.

2 The employment of nuclear weapons in preparation for helicopterborne night attacks is desirable.

(c) Coordinated Helicopterborne and Surface Night Operations.--When the regimental commander contemplates a coordinated attack, the terrain must include features easily identified at night for linkup and fire support coordination.

d. Planning for the Helicopterborne Attack

(1) Basic Considerations.--The basic differences between planning for helicopterborne operations and for other types are derived from the characteristics, capabilities, and limitations of the helicopter itself. The plan of attack for offensive operations employing the helicopter includes the scheme of maneuver, plan of supporting fires, and landing plan. These three elements are interdependent and must be considered concurrently in developing the overall plan.

(a) The initial plan for ground operations is developed first. The landing plan is then developed to support the scheme of maneuver. The fire support plan is designed to support the scheme of maneuver and the landing plan. All of these elements are integrated into the regiment's operation plan.

(b) Helicopterborne operations require integrated planning at all levels between the supporting helicopter unit and the regiment. Planning provides for coordination of helicopterborne operations with surface operations in the event the regiment is not lifted entirely by helicopter, or if it is participating in a coordinated operation with surface forces from other units.

(2) Reconnaissance

(a) Aerial reconnaissance should be conducted by the regimental commander and appropriate staff officers. Subordinate units should be used to accomplish ground reconnaissance missions.

(b) A reconnaissance plan, for use after landing, is prepared prior to initial movement.

(3) Scheme of Maneuver.--The scheme of maneuver includes the selection of objectives and other tactical control measures. The scheme of maneuver is influenced by the availability of landing zones. Landing zones are located as close as possible to the final objectives (or on the final objective) in order to fully exploit surprise and the shock effect of preparatory fires.

(4) Selection of Landing Zones

(a) Landing zones may be designated by higher authority or selected by the regimental commander, considering the advice and recommendations of the supporting helicopter unit commander. Landing zones are sought which are on or close to the objective.

1 Enemy artillery and mortar units must be adequately neutralized with the available fire support. Helicopter landings should not be conducted in strongly defended areas unless there is no other way to accomplish the assigned mission. If the mission requires the regiment to execute such a landing, intensive preparatory fires are required.

2 Alternate landing zones are selected early in planning. In the selection of alternate landing zones, minor tactical advantages of terrain may have to be waived. Alternate landing zones are located in proximity to the primary zones. This enables the regiment to consolidate its tactical units even though enemy action may force the followup waves to be delivered to alternate landing zones after initial waves have landed in the primary zones.

3 The decision to order a change from the primary to the alternate landing zone rests with the regimental commander unless reserved by higher command.

(b) The capability of supporting arms to deliver adequate preparatory and supporting fires during the landing is a primary consideration. The number of landing zones is restricted to those for which adequate fire support can be provided. When nuclear fires are available for both preparation and subsequent support, a much wider choice of landing zones may be possible.

(5) Approach and Retirement Lanes.--Primary and alternate approach and retirement lanes are selected by the helicopter unit.

(6) Formations.--After the regiment or subordinate units have landed, standard tactical formations are employed by units. However, the initial formations are influenced by such considerations as the type of helicopters available, size and location of landing areas and the regimental mission.

(7) Time of Attack

(a) The time of attack for the helicopterborne operation is the precise time that the first wave of assault troops, exclusive of terminal guidance teams, is to touch down in the landing zones. Determination of time of attack for a helicopterborne assault is based generally on the same considerations which apply for surface attacks. Of particular importance is the time required for available fire support to adequately neutralize approach lanes and landing zones.

(b) The decision as to whether the helicopterborne assault should be made during daylight or darkness depends on the assigned mission, relative air superiority, weather conditions, terrain in the area, training level of personnel, and the importance of secrecy and surprise.

(c) The timing of a helicopterborne attack may be coordinated with an attack by surface forces or it may be based upon the time that a linkup with surface forces is desired.

(8) Landing Plan

(a) The landing plan ensures that subordinate elements of the regiment are landed at the proper place, in the proper formation, and at the proper time to carry out the ground scheme of maneuver. The landing plan is a precise timetable for the movement of the troops and equipment of the regiment by helicopter. Tactical integrity of assault units at the time of the landing or shortly thereafter is essential.

(b) The landing plan is developed through joint and coordinated planning by both the regiment and supporting helicopter units.

(c) Although the requirements differ for each operation, a well trained regiment, with standing operating procedures, can reduce the time and effort devoted to preparation of a landing plan. A written landing plan is desirable if time is available for its preparation.

(9) Fire Support Planning

(a) General.--Fire support planning for helicopterborne attack follows normal procedures. Additional considerations peculiar to helicopterborne operations include:

1 The speed of movement and the increased capability for movement in depth provided by the helicopter.

2 The vulnerability of helicopters to enemy fires while in flight.

3 The vulnerability of troops during the landing and immediately thereafter.

4 The lift limitations of helicopters.

5 The requirements for neutralization of approach and retirement lanes, and landing zones.

6 The requirement for fire support capability on a 360-degree perimeter following the landing.

7 The possible requirement to establish fire support bases to extend effective range of direct support artillery.

(b) Fire Support Requirements.--The distance at which the regiment or its subordinate units are operating from other units generally determines the fire support means which must be employed. If the helicopterborne regiment is committed in conjunction with or is to effect a linkup of forces with surface units, relative requirements are determined in relation to the overall operation and the coordination of supporting fires requires careful planning. Regimental plans provide for integrating these fires with air support operations in all phases of the operation. Normally, the surface units place primary reliance on artillery, tanks, and other surface means while the helicopterborne elements of the regiment depend primarily on air support and helicopter transportable artillery. As the two forces effect a linkup, all supporting fires are integrated.

(c) Nuclear Support

1 When vigorous enemy defensive action is anticipated, the regiment may be precluded from landing in the desired zone.

2 Safe distance for friendly forces must be ensured during initial nuclear preparation of landing zones and approaches. If the regimental commander desires subsequent nuclear support, careful consideration is given to the radius of nuclear effects and time of delivery. This is particularly true because the relative vulnerability of in-flight helicopters to the effects of nuclear munitions. Withdrawal or holding of loaded helicopters in safe areas prior to nuclear detonations may cause routing to become a serious consideration in fire support planning. Designation of easily recognized control points beyond which in-flight helicopters will not advance prior to the nuclear detonation is a necessity. Any delay in delivery of nuclear fires will result in excessive orbiting by the helicopters and may have deleterious effects on fuel consumption.

3 The regimental commander ensures that conventional preparatory fires are planned for approach and retirement lanes and landing zones in the event planned nuclear strikes are aborted for any reason.

4 The time of the regimental landing following a nuclear preparation is influenced heavily by primary and secondary effects. Prior to landing initial waves, helicopterborne monitors accurately verify the amount and location of these effects in the landing zone. A nuclear preparation should be supplemented by standard or chemical munitions whenever possible.

(d) Employment of Smoke.--Smoke may be used to blind the enemy and to control helicopter movements in the same manner as during surface operations. Care must be exercised to ensure that smoke does not silhouette the helicopters, disclose the location of approach and retirement lanes and landing zones, or otherwise hinder operations. (See FMFM 6-3, Marine Infantry Battalion.)

(e) Antimechanized Defense Planning

1 Antitank weapons which are not helicopter transportable may not be initially available to the regiment. For this reason, every effort must be made to augment the organic antitank capability of the regiment. If the operation involves a combined helicopter and surface assault or an eventual linkup of forces, it is highly desirable that the task organization of the surface force include the heavier antitank weapons.

2 When employment of fixed-wing aircraft is feasible, consideration should be given to airdropping or air landing antitank weapons on captured airstrips, particularly when the linkup with surface forces will be delayed for a considerable time. Consideration is given to the employment of mines, particularly in avenues of approach to the TAOR.

e. Conduct of the Landing and Subsequent Operations

(1) The landing is executed with speed and precision. The first unit of the regiment to land secures the landing sites and thereafter the landing zones to ensure security of subsequent landings. If the landing takes place directly on the objective, subordinate units are assigned responsiblity for portions of the objective as in ground operations. If the landing zones are located some distance from the objective, the landing zones are first secured. Reconnaissance elements are dispatched to procure information and provide security. Control is retained at the lowest tactical echelon and is progressively taken over by higher commanders as the landing progresses.

(2) After securing the landing zones, the regiment attacks the assigned objectives by ground maneuver. Ground action is executed as rapidly as possible to overwhelm the enemy before he can recover from the shock of the landing and reinforce his defense.

(3) The regiment may frequently conduct operations where one or more subordinate elements advance overland while the remainder of the regiment lands by helicopter. (See fig. 25.) The period immediately prior to and during the linkup of helicopterborne and surface forces is critical for two reasons:

(a) Substantial enemy forces may lie between the two friendly forces requiring detailed coordination between the two in order to ensure success.

(b) Fires placed on targets between surface and helicopterborne forces will necessitate close coordination to ensure the safety of the converging forces.

f. Logistic Support in Helicopterborne Operations.--The aspects of logistics peculiar to helicopterborne operations arise from the increased speeds, the large areas and long distances over which helicopterborne

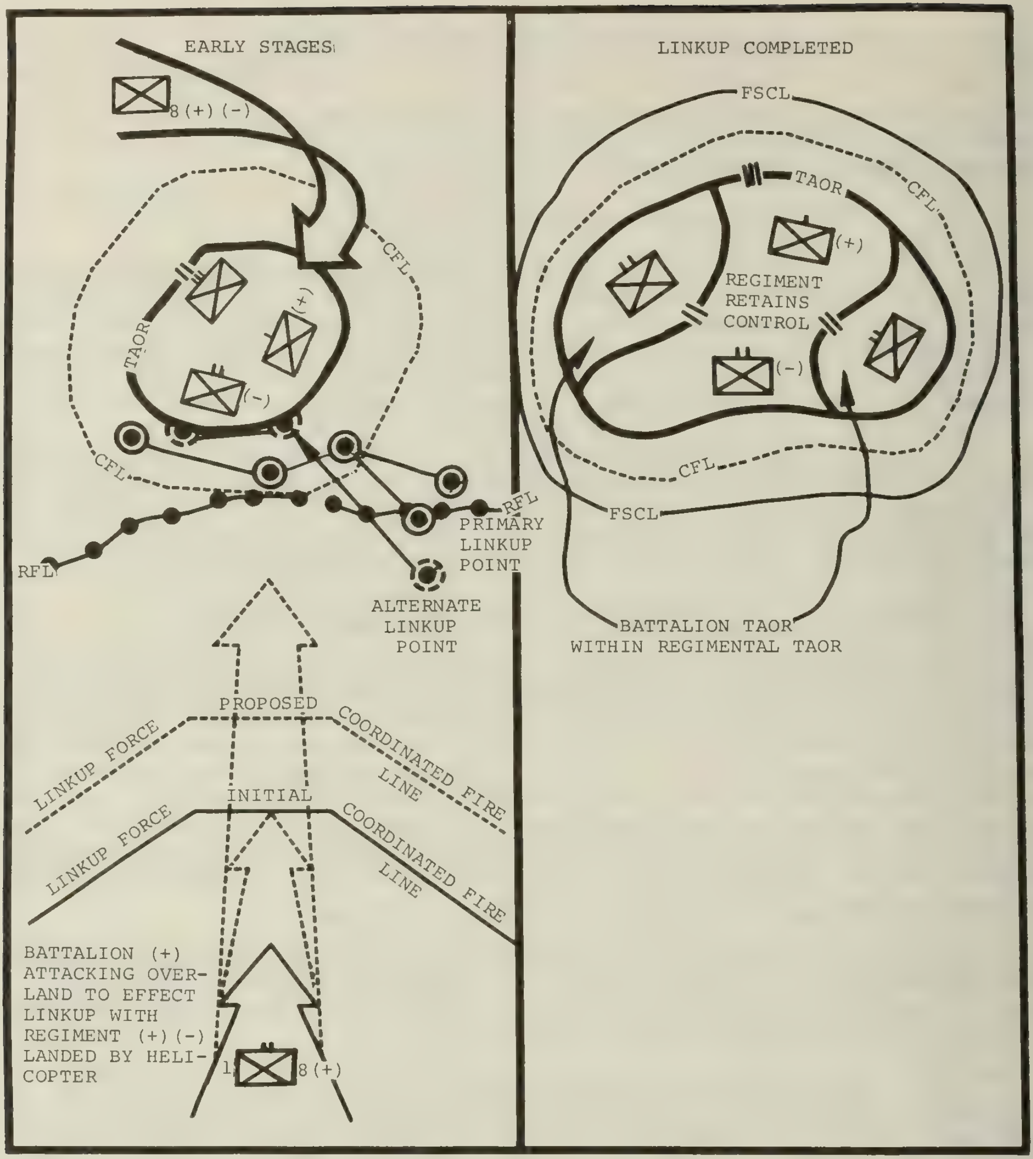

EARLY STAGES
8(+)(-)
TAOR
(+)
(-)
CFL
RFL
PRIMARY LINKUP POINT
ALTERNATE LINKUP POINT
PROPOSED
LINKUP FORCE COORDINATED FIRE LINE
INITIAL
LINKUP FORCE COORDINATED FIRE LINE
BATTALION (+) ATTACKING OVERLAND TO EFFECT LINKUP WITH REGIMENT (+)(-) LANDED BY HELICOPTER
1
8(+)
LINKUP COMPLETED
FSCL
TAOR
CFL
(+)
REGIMENT RETAINS CONTROL
(-)
BATTALION TAOR WITHIN REGIMENTAL TAOR

Figure 25.--Coordination and Control Measures During Combat and Linkup Between Helicopterborne Force and Ground Unit.

operations may be conducted, and the task organization required for such operations.

(1) Capabilities.--Helicopters can provide a means of movement which is not dependent on waterways, airfields, or roads, and which is able to bypass natural obstacles as well as enemy defenses and artificial obstacles. They can deliver supplies and equipment without intermediate handling or transfer. They can rapidly evacuate casualties from frontline elements of the regiment direct to field hospitals or ships.

(2) Basic Logistic Planning Considerations.--The following considerations are fundamental to planning logistic support of helicopterborne operations.

(a) The logistic system is made as economical, simple, and flexible as possible.

(b) Logistic support must satisfy requirements of both the regiment and helicopter elements.

(c) Each infantry battalion must be capable of providing its subordinate echelons and attached units with required logistic support in order to meet the requirements of unit separation. In many instances, this requires attachment of combat service support units to each infantry battalion.

(3) Planning Logistic Support

(a) The volume and weight of supplies initially carried by the regiment are kept to the absolute minimum consistent with the mission. In most cases, no more than one or two days of supply will usually be carried.

(b) Regimental requirements for logistic support of the helicopterborne movement are submitted to the next higher echelon. These requirements cover three phases: support of the initial movement, resupply of units following the initial movement, and emergency resupply, when required.

(c) During the initial movement every effort is made to reduce the volume and weight of supplies and equipment. In prescribing the amount of supplies to be carried by subordinate units, the regimental commander considers the mission and helicopter availability.

(d) Resupply plans provide for a uniform flow of supplies direct to the using unit. Unit distribution to assault battalions and lower echelons is normal. Preplanned expendable supplies are furnished automatically. Delivery of requested items is scheduled at frequent intervals. Helicopters required to provide necessary logistic support are not diverted to other tasks except in emergency. Plans include provision for emergency resupply to meet unforeseen requirements, evacuation, and other contingencies. Delivery of supplies by airdrop or air landed from fixed-wing aircraft should be considered.

(e) For operations deep in enemy territory, the regiment and subordinate battalions may require a logistic support organization of a helicopter support team. (See sec. VI, ch. 2.)

(f) In planning for short-lift helicopterborne operations, or those involving relatively small units, every effort is made to keep the amount of logistic support augmentation to the minimum. Reliance is placed on battalion service platoons during such operations. Experience factors are analyzed and unit SOP's devised to simplify planning and execution of logistic support functions. Plans are made for responding to request for helicopter delivery of supplies directly to separated elements, outposts, and observation posts.

(g) In planning for combined helicopterborne and surface operations, primary reliance is placed on surface transportation for the bulk of supplies and equipment. Resupply may be necessary by helicopter and/or fixed-wing aircraft when the operation involves bypassing enemy units or when guerrilla elements can interdict the surface lines of communications.

(h) In operations involving wide separation between the regiment and other division elements, considerations in the provision of logistic support are as follows:

1 Logistic support of separated units of the regiment is preplanned and daily requirements of expendable supplies are furnished automatically, directly to the separated units.

2 Provision is made for prompt transmission and receipt of logistic requests and for prompt action to fulfill them.

3 Emergency maintenance is performed by repair teams at unit locations as practicable. When equipment cannot be repaired at the using units, replacement items are delivered by helicopter and damaged items returned to the division logistic support area for repair.

3312. MECHANIZED OPERATIONS

a. General

(1) The regiment, reinforced as necessary, may employ assault amphibious vehicles to provide mobility for units conducting operations to seize deep objectives or to effect a linkup with previously landed helicopterborne units.

(2) When assigned such a mission, the infantry regiment normally is reinforced to form a task organization of combined arms suited for the particular operation. Extensive planning is necessary for operations of a mechanized force because of the individual characteristics of the units involved. Tanks and assault amphibious vehicles have limiting characteristics in certain types of terrain and have special logistic and service support requirements when operating over extended distances. To provide the necessary fuel, spare parts, and maintenance support for these vehicles, ground supply routes must be available unless it is possible to load sufficient supplies and to include maintenance elements within the force or to effect resupply by aviation units.

(3) The capabilities of assault amphibious vehicles make them highly suitable as a means to attain ground mobility for the regiment. In addition, their construction provides a degree of protection against the effects of ground fires and radiation.

b. Organization for Combat

(1) The composition and organization for combat of a mechanized regiment will be derived from the mission, enemy situation, terrain, and the scheme of maneuver. A typical organization includes four principal tactical units--advance guard, flank guard, main body, and rear guard.

(2) Tanks are normally employed as an integral part of the task organization. Their capabilities include the same types of support provided during normal ground combat. If strong opposition from enemy armor is anticipated, regimental reinforcements will include an adequate number of tanks and antitank weapons.

(3) Engineer support is required to breach minefields and obstacles and to improve trafficability for mechanized elements. Engineer support is included with the leading elements of the regiment in order to ensure an uninterrupted advance.

(4) If the objective of the mechanized regiment is within range of emplaced artillery, fire support should be provided from a source external to the force. This ensures immediate availability of fires and reduces the logistic requirements of the force. If the objective is beyond the range of any artillery fire, fire support means such as self-propelled artillery must be provided.

(5) Close air support is of major importance. Targets suitable for air attack may be located and attacked well forward of the advance elements. The neutralization or destruction of these targets will enhance an uninterrupted advance. The effects of obstacles and delaying forces are critical to the mechanized regiment since each requires some degree of dismounting and deployment. Tactical air control parties of the regiment operate from command type amphibious vehicles (LVTC). Aerial observation and screening is necessary to search in depth to the front and flanks in order to locate and provide early warning of enemy forces and barriers to the advance.

(6) Mobile air defense weapons should be included in the force, if available, particularly if air opposition is expected.

(7) All elements attached to or supporting the regiment must be capable of a high degree of mobility. This mobility is vital particularly for elements providing service support and fire support.

(8) Elements of the tank battalion normally are attached to the mechanized regiment to provide antimechanized defense to the flanks, rear, and throughout the columns.

c. Control.--It is important that only minimum restrictions be imposed upon subordinate commanders so that they can rapidly react to the changing situation and keep the force moving to the objective. Routes of advance, axes of advance, phase lines, no fire lines, and checkpoints are especially useful in such operations. Command type assault amphibious vehicles are used to supplement mobile communications.

d. Employment of Mechanized Forces.--The underlying principle of employing a mechanized force is rapidity of movement which enables the commander to seek deep objectives exploiting with speed and shock action to reduce losses. The tactics employed, utilizing the force's inherent mobility, allow rapid concentration and dispersion. A mechanized force maintains the ability to engage or maneuver and bypass any type of resistance confronted throughout the operation. Tank units do not delay the advance by engaging centers of resistance. They suppress the fires and allow the infantry to perform this task. The attack may be divided into five phases--breakout, movement toward the objective, attack on strongpoints, assault of the objective, and subsequent operations.

(1) Breakout.--The tactical situation may require the mechanized force to penetrate the enemy's forward defenses in order to initiate the attack toward deeper objectives. Maximum firepower and shock action are employed to assist the mechanized force in accomplishing the breakout. Other friendly units may be employed to execute diversionary attacks to assist in the breakout.

(2) Movement Toward the Objective

(a) Formation.--Whenever possible, the assault elements of the force advance in column deployed over several roads. Secondary roads or cross-country routes are used to gain surprise or to bypass enemy resistance. A single column formation is utilized when a threat of nuclear attack exists or when limited forces are employed.

(b) Bypassing.--A mechanized force does not delay the advance by attacking isolated enemy defensive areas. However, an enemy force should not be bypassed if it can interfere with the accomplishment of the mission. When centers of resistance are met, the main group should not delay. They are bypassed or only sufficient resources are left to block or contain them.

(3) Attack on Strong Points.--If security forces are unable to cope with resistance, and bypassing is not feasible, only the forces deemed necessary to destroy or neutralize the enemy are employed, the steps are the same. Seldom will the attacking force have the time to attack from a conventional assembly area, or issue detailed orders. Generally, the attack commences directly from the march column. Once a determination is made to attack, the commander issues immediate oral, fragmentary orders. Rapid positioning of artillery is essential in order to cover both the deployment and the attack. When time permits, units halt in place and effect limited additional coordination.

(4) Assault of the Objective.--Tactics employed are generally the same as those applicable to conventional tank-infantry action.

(5) Subsequent Operations.--Immediately following the seizure of the objective, all units consolidate. Plans for the resupply at the objective are initiated prior to its seizure. During this critical period, close security is maintained. Units disperse as soon as possible according to previous plans to lessen the threat of nuclear counterattack. During resupply, service elements do not assume a security role, but direct their efforts toward the service and support requirements of the force.

3313. ATTACK OF FORTIFIED POSITIONS

a. General

(1) A fortified area normally consists of series of strongly organized localities disposed in depth and width in such a manner as to be mutually supporting. It may consist of concrete and steel, or earth and log bunkers, artillery, automatic weapons and troop emplacements, tank traps, and obstacles disposed in depth to the front and flanks. Chemically contaminated areas may be located in front of and between these major works to cover dead spaces which direct fire weapons cannot reach from the main fortifications. Lightest fortifications are found in areas possessing difficult natural terrain. Specially trained troops with

special equipment may find such areas the easiest for the penetration of the fortified position.

(2) Whenever possible, area positions are bypassed and later reduced by siege or by attack from the rear. However, fortified areas must usually be reduced by direct attack. This penetration is followed by envelopment of the created flanks to isolate the separate parts. The width of the front of the penetration is limited by the amount and types of artillery, aviation, or nuclear weapons available, the possibility of employment of armor, and the number of trained assault attachments available.

(3) The basic principles involved in the attack of a fortified area are the same as those for any other attack. The principal differences are increased special training, thorough preparations, special equipment and troops required, and comparatively narrow frontages. The frontage of an infantry battalion may be as narrow as 400 meters.

(4) Local air superiority is necessary in operations against a fortified area. The attack on hostile reserves by supporting aviation both prior to and during the attack is of material assistance in isolating the area under attack. Under certain circumstances, supporting aviation attacks selected areas in close support of the assault. It may also supplement artillery fire on installations in the fortified position or attack hostile artillery or lines of communication. Saturation bombardment of the area of assault immediately prior to the attack may also be employed. The use of nuclear weapons may greatly assist reducing enemy resistance prior to the attack.

(5) The extent of the main and outpost positions, to include their depth, width, obstacles, supporting artillery positions, observation posts, and the location and character of the emplacements and their dead spaces must be determined.

(6) The assault detachments, screened by smoke and taking advantage of terrain and dead spaces outside the angles of fire, push through and around emplacements under the protection of fire from all available supporting weapons and other troops in the attack echelon. Close coordination is required in the infantry-tank-artillery-engineer-air team (naval gunfire also, if available).

(7) Liaison between tanks, artillery, attacking troops, and aviation is maintained by all possible means. Extensive radio and wire nets, messengers, visual signal stations, and pyrotechnics are employed to ensure timely transmission of information and orders.

(8) Helicopterborne troops may be landed within and to the rear of the larger fortifications on the front of the main attack to seize, hold, or destroy vital installations or areas, to block the movement of reserves, and to assist assault troops by attacking the fortifications from the rear. When such troops are used, their operations are coordinated with all other components of the attacking force. Special attention must be given to coordination with artillery, other supporting arms, and supporting air.

(9) The amount of ammunition, artillery, and cooperating aviation available, the degree of surprise possible, and the depth of the

fortifications on the front of the penetration will determine the length and intensity of supporting fires prior to the assault. The bombardment of the whole front by artillery and aviation continues from the beginnning of the preliminary operations. At some time prior to the hour of attack, the bulk of all supporting fires, ground and air, is concentrated on the fortifications on the front of the initial penetration. Supporting aviation attacks hostile reserves, artillery, and sensitive points in the fortifications which artillery does not, or cannot, reach. Artillery is concentrated on points in the fortifications which offer the greatest danger to success of the penetration. The fire of light, flat trajectory weapons is directed against lighter obstacles and embrasures in the fortifications. The use of smoke is carefully coordinated to preclude interference with supporting fires. Supporting fires on the front of thee penetration are lifted on signal from the commander of the assault force. The bulk of supporting fire then shifts to the next fortifications to be reduced, or is placed to meet hostile reaction to the initial assault. Fires, including screening smoke, are maintained against fortifications not subjected to the assault.

(10) Once a breach has been effected and emplacements on the initial front reduced, additional assault detachments are sent into the gap at once. They attack the flanking works in each direction and widen the base of the penetration while the assaulting force deepens the penetration by advancing and attacking the next fortifications in its zone. Troops in the rear of the assault force are pushed rapidly through the gaps created. Enemy fortifications on the flanks of the regiment may afford the enemy an opportunity to quickly organize and launch strong counterattacks. The strength of a fortified position usually will be augmented by strong field fortifications which must also be taken or destroyed. Enemy reserves frequently will be disposed in strong, covered positions for such counterattacks. Delay in attacking the flanking fortifications and reinforcing the advance of the assault force may result in a serious reverse and the loss of the assault force by hostile counterattack. Troops in the zone of the flanking works move to the support of the assault detachments as rapidly as fortifications are neutralized. Unless required by the attacker, captured enemy armament is removed or destroyed and gun emplacements demolished to prevent their recapture and use by the enemy.

(11) Based upon prearranged plans, highly mobile forces are prepared to exploit the penetration. Exploitation forces should be heavy in armor and usually will include both reserves and units disengaged from the attack. Plans and preparations are made to include motorized infantry units, if possible. Helicopters may be employed to increase the mobility of infantry units. When the fortified position has been breached throughout its depth, these forces immediately are pushed through the gap. The shoulders of the penetration are defended against hostile counterattacks. Protection is given to troops passing through the gap by troops holding the shoulders of the penetrations, by troops landed by helicopter in the rear of the fortifications, and by supporting aviation.

(12) Once through the gap, exploitation forces fan out, moving rapidly on all roads leading toward the hostile rear. Exploitation forces complete the demoralization of the enemy. Close cooperation by and coordination with aviation is mandatory. The principal targets for cooperating aviation are hostile reserves and troops attempting to block the movement of the exploitation forces. Suitable forces are assigned the mission of keeping the gap open against anticipated hostile efforts to close it.

b. Use of Nuclear Weapons.--Listed below are some of the more important considerations in the employment of nuclear weapons:

(1) Type of Burst.--Normally, the best type of burst to be employed against fortified positions, particularly those consisting of steel and concrete works, will be a surface burst. An airburst may be employed when the situation and plan of maneuver so dictate. Residual radiation and ground shock increases in intensity as the elevation of the burst is decreased; the ground shock created by a surface or subsurface burst will destroy fortifications and create gaps. By the same token, it may become necessary to utilize helicopters to avoid areas containing residual radiation.

(2) Advantage of the Defender.--Since the strength and protection provided by the defensive position generally requires the attacker to mass his forces in order to penetrate the position, the attack formations offer remunerative targets. The employment of a nuclear weapon to achieve an initial penetration is weighed against the risk of damage to our own forces. A withdrawal from a forward position invites the enemy to advance and force combat while friendly forces are off balance, or to employ his own nuclear weapon while enjoying the protection of his position.

(3) Size Weapon Employed.--Larger weapons may be used against the enemy's rear with an attendant destructive effect on his own forward positions; therefore, it may be advisable to use the larger type weapon since the rupture of the enemy's forward defenses may be accomplished at the same time his rear area and reserves are being softened up for future operations. Where practicable, small and large yield weapons may be employed together to create a gap of greater depth.

(4) Modifications to Techniques Governing Attack of a Fortified Position.--Planned employment of nuclear weapons may preclude the necessity of battalions occupying forward positions until the very last moment. The reduction of fortifications step-by-step may be modified to an extent that permits rapid seizure of a final objective in the enemy's rear by capitalizing upon the shock and destruction of well-placed weapons on forward fortifications. Mutual support and contact between attacking forces will be secondary to the ability of the individual commanders to take quick, decisive action. A lesser need may exist for the attachment of additional direct fire weapons because the destructive effect of the nuclear weapon can, in itself, decrease the need for direct fire support by rendering enemy personnel, bunkers, and other fortifications ineffective. Fire support from conventional weapons must still be planned and executed as necessary.

3314. FIRE SUPPORT BASE, SPECIAL CONSIDERATIONS

a. General

(1) In order to provide continuous artillery support to maneuver units operating in mountains, swamps, forests, and jungle areas, not accessible by roads, it is necessary to select, develop, and occupy artillery positions in this same environment. These positions are generally referred to as fire support bases. Very basically, a fire support base is a rapidly constructed artillery position which is defended by a minimum of infantry and established to support a maneuver force operating away from fixed lines of communications for a limited period of time.

(2) The complexities of fire support base operations are similar to those experienced in any amphibious or helicopterborne operation, therefore, planning and coordination must be very thorough and detailed.

(3) In contrast with a conventional firing position, the fire support base is characterized by its isolation, and complete dependence upon the helicopter for support.

(4) The fire support base location must be closely integrated with maneuver force plans and its development is a joint effort by infantry, artillery, engineer, and air.

b. Commander's Considerations.--In the development of an FSB, the role of the maneuver force commander is dominant. His guidance and his decisions must be timely and complete. While he may be advised by staff officers and supporting commanders on a variety of matters related to site selection, requirements, priorities, construction, and occupation, the commander personally directs the planning effort.

c. Command and Staff Planning.--As the first step of the development process, the maneuver force commander and his staff must plan for the phased development of the site. Phase development requires the timely and orderly arrival of supplies and equipment as required and the necessary system to ensure on site availability as each item is needed. The maneuver force commander must have continuous and positive control of all personnel and equipment to insure that all elements are committed to projects according to predetermined priorities. Subordinate facilities should not deter or delay construction of those facilities necessary to support the primary purpose of the FSB. The maneuver force commander must also provide for continuous security for the site to allow work to continue without interruption. The security requirement is based upon a changing enemy threat, defensibility of the site, and vulnerability of the facilities located at the site. Adequate and responsive communications are a tool of the maneuver force commander to maintain a continuously updated plan and to call for additional personnel, equipment, and supplies as the construction progresses.

(1) Site Selection.--Based on the purposes for which the FSB is to be constructed, the maneuver force commander, by map inspection and visual reconnaissance, if the situation permits, makes a determination as to the general location of the FSB. Since the primary purpose of the FSB is to position the artillery, which in turn is positioned to support the scheme of maneuver, then it follows that the selection of a general area in which the FSB will be located can be narrowed down to several specific sites, any of which could meet essential requirements. Essential requirements include not only the purpose of the FSB but also must include mutual supportability of other FSB's. The normal distance separating FSB's is based on retaining approximately one-third of the range capability of the artillery weapon to be emplaced in the FSB's, for counterfire support around and beyond the mutually supported FSB's. For example, when utilizing the 105mm howitzer, the maximum separation distance is approximately 8,000 meters.

(2) Reconnaissance.--Prior to visual reconnaissance, to select a specific site, the maneuver force commander and his advisors should make a detailed map study of the area and select several tentative sites to gain as much familiarity with the terrain as possible in order to reduce visual reconnaissance exposure time. After the map study has been completed and one or more potential sites have been tentatively identified, the maneuver

force commander organizes his reconnaissance party and plans his visual reconnaissance. Normally, those accompanying him on his visual reconnaissance will include the direct support artillery battalion commander, the unit operations offficer, the engineer officer, and the air unit commander or his representative. Subsequent visual reconnaissances may include any number of interested commanders and staff officers, such as the maneuver unit air/aviation officer and the communication-electronics officer. During the map study and particularly during the visual reconnaissance made for selection of the specific site, the following factors are considered:

(a) Purpose.--The purpose is always the dominant factor. In addition to the type and quantity of artillery to be positioned, all other uses to which the FSB may be put are considered. Total purpose determines the size of the site selected.

(b) Topography.--Topography is studied in terms of engineer effort required, communications suitability, defensibility of the site, helicopter approach and departure, and the use to which the FSB will be put.

(c) Vegetation.--Vegetation is studied in terms of feasibility of employing preparatory aviation ordnance, engineer effort required, and defense considerations.

(d) Elevation.--Elevation is especially a consideration with respect to weather and helicopter resupply. Elevation is a consideration with respect to helicopter lift and also as it relates to extension or reduction of artillery range.

(e) Defensibility.--Potential sites must be regarded in terms of the effort required to defend the FSB. In ideal situations, an FSB can be developed which requires only one rifle platoon to defend it.

(3) Determining Priorities of Construction

(a) Priorities of construction are determined by the maneuver force commander based on the advice primarily of the engineer project officer and the artillery commander. First priority goes to a temporary logistics helicopter pad for supply during the initial stages of construction.

(b) The development of a fire support base will vary with size and mission of the unit which will occupy it and with the phasing in of the unit. The following recommended list of priorities may be changed as necessary but fits most situations:

1 Temporary logistics helicopter pad.

2 105mm howitzer positions.

3 Ammunition facilities.

4 Fire direction center.

5 Permanent logistics.

6 155mm howitzer positions.

7 Defensive positions and barriers.

8 Garbage dump.

9 Combat operations center/tactical operations center (COC/TOC) and FSCC.

10 Command and control pad.

11 Sleeping bunkers.

12 VIP helicopter pad (for large FSB only).

(4) Securing the Site

(a) Based on the enemy situation, the position of friendly forces, terrain (i.e., existence of nearby potential landing zones), and timing, the maneuver force commander decides how the FSB site is to be initially secured. This may be accomplished by:

1 Preparation fires, air, artillery, NGF must be planned and will be executed as necessary.

2 Reconnaissance team insertion on or near the site to be followed by a tactical insertion of infantry elements.

3 Helicopterborne assault on or near the site.

4 Movement of forces overland to seize the site.

(b) Once the site has been secured with forces adequate to defend the work party, the engineers, their tools and supplies, and sometimes additional troop laborers are brought near or directly to the site. Engineers may have to be inserted by ladder or rappel until a temporary helicopter landing zone is prepared.

(5) Siting Facilities.--The commander locates the planned facilities on a topographic sketch of the area with the assistance of the supporting artillery commander, engineer commander, and staff officers. Specific recommendations should be made on the following considerations:

(a) First priority is given to the artillery positions. The fire support base is primarily a base for the artillery to support the maneuver force and hence the artillery is positioned first. Gun parapets with a 6,400-mil capability and as little as possible or no overhead firing restrictions are desired.

(b) Helicopter logistics pads are positioned on the highest point of ground, clear of interference from gun positions and other facilities, permitting the downhill movement of supplies and the arrival or departure of helicopters without stopping work or halting firing in the primary direction.

(c) Ammunition and powder bunkers are located to minimize ammunition handling and fire and explosion hazard, both to the powder and ammunition and to other facilities.

(d) Antennas are placed away from artillery gun positions, helicopter pads, and helicopter approach and departure lanes.

(e) Fire direction center is located near the guns.

(f) Logistics bunker for support of mini-LSA is placed convenient to the logistics pad.

(g) Mess area, sanitation facilities, garbage, and trash disposal are positioned for easy access, yet out of the way.

d. Logistics Planning Considerations

(1) The primary effort in logistics planning is to deliver supplies, equipment, and personnel as needed. Early arrival is as bad as late arrival as there is no place to set excess or unneeded items aside until a place is constructed for the use or storage of the items. The S-4, supervised by the maneuver force commander, coordinates with the engineer and artillery commanders to continue the concept of phased development.

(2) Resupply of the FSB is a problem area for the commander. Daily resupply is planned on predetermined requirements to maintain operating and emergency supply levels at the FSB's, plus additional supplies as requested by the unit commander.

(3) During the planning phase, the maneuver force commander ensures liaison is made between the S-4 of the unit to be supported and the supporting activity. Particular emphasis is placed on the establishment of priorities for supplies. On call supplies are then staged at the LSA in preparation for movement to the FSB.

(4) Only under very unusual conditions will an FSB have any source of usable water other than that which is hauled in. The water trailer is the best way to haul and store potable water for use at the FSB. A minimum of two trailers are required to ensure that at least one water trailer is at the site.

(5) Cable pendants 50 to 150 feet long are required for delivery of external loads by helicopters to units operating out of FSB's in dense jungle canopy where landing zones are not available.

(6) Additional fire fighting equipment not normally organic to the combat units involved must be planned for and delivered to the FSB as soon as possible after initial artillery unit lifts. The lack of adequate space, large amounts of powder, and number of projectiles make a flash fire a major threat to the FSB. Fire prevention and preparation to fight a fire must be of never ceasing concern to all personnel within the FSB.

(7) The combat load for the intial phase of establishing an FSB should be contained in unit SOP's or directed by the maneuver unit commander.

e. Communications-Electronics/Signal Planning.--The commanding officer of the tactical unit charged with establishing an FSB is responsible for planning and supervising the installation, operation, and maintenance of the communications necessary to support the operation.

f. Defenses

(1) From the arrival of the first troops until the departure of the last, the maneuver force commander is concerned with an ever-increasing defensive capability. All occupants/tenants of a defensive position for each FSB must look to itself for its own close-in and interal security.

(2) The defensive capability of an FSB will only be as effective as the planning, organization, preparation, and skill of execution. The following salient considerations should be included in defensive planning:

(a) Each man and each weapon is assigned an area of responsibility, either along the protective wire or at critical points in the interior. Direct artillery covers as much of the perimeter as possible.

(b) Fields of fire are cleared and interlocking fire plans are in effect.

(c) Trip flares are emplaced in depth around the perimeter protective wire, and anti-intrusion devices are installed as required.

(d) Close-in, self-supporting artillery programs are computed and registered to ensure accuracy and adequacy.

(e) Defensive concentrations of artillery from distant fire support bases are planned.

(f) Reserve ammunition points (small arms, grenades) are included in the construction of the bunker complex to enable convenient distribution with minimum exposure of personnel.

(g) Personnel are continuously instructed and rehearsed on the defensive plan to include the significance of pyrotechnic signals, communications, and fire discipline.

(h) Communications to perimeter forces should be in effect as resources allow.

g. Artillery Occupation of the Fire Support Base

(1) Following the reconnaissance and final selection of the FSB site, it is the maneuver commander's responsibility to have units secure the ground and start construction of the landing sites. Additional infantry and engineers are inserted as space permits. The artillery battery reconnaissance party is also inserted to work with and advise the infantry and engineer teams in ground preparations prior to the receipt of the first howitzer.

(2) Actual sequence of movement to the FSB will depend upon weather, helicopter availability, and tactical requirements. The sequence of lift shown herein is flexible and should be modified when a situation justifies. This sequence provides flexibility to adjust to speed up conditions and is frequently referred to as the battery "platoon package" sequence.

(3) For detailed information, see FMFM 7-4, Field Artillery Support.

Section IV. DEFENSIVE OPERATIONS

3401. GENERAL

a. Defense is the employment of all means and methods available to prevent, resist, to destroy or trap a hostile force; to reduce the enemy capacity for offensive action; or to deny an enemy entry into an area. The objective of defensive combat is to gain time pending the development of more favorable conditions for undertaking the offense; to economize forces in one area in order to concentrate superior forces for decisive offensive action elsewhere; or to maintain control or possession of an objective.

b. This section describes the basic techniques, concepts, and procedures employed in planning for and conducting defensive operations at the infantry regiment level. In order to identify the various defensive tasks which the infantry regiment or regimental landing team may perform, this discussion frequently describes the roles and missions of higher echelons as well as the employment of subordinate units where appropriate. Consideration is given to the influence which the employment or the threat of employment of nuclear weapons exerts on warfare.

3402. CONCEPT OF DEFENSE

In the defense, the defender takes every opportunity to seize the initiative and to destroy the enemy. The defender seizes the initiative by:

a. Selecting the battle area.

b. Forcing the enemy to react in conformity with the defensive plan.

c. Exploiting enemy weaknesses and errors by offensive operations.

d. Counterattacking enemy successes.

3403. DEFENSIVE DOCTRINE

Defensive doctrine contemplates the organization of defense areas which will enable the enemy to be defeated through decisive action; the use of security forces to give timely warning and provide information of the enemy's advance, to delay and disorganize his advance, and to deceive him as to the true location of the battle area or area in which the engagement is to be fought; and finally, the employment of reserves to limit penetrations and to eject or destroy the enemy should he penetrate the defensive area. The regiment and its echelons defend their assigned area or position at all costs and abandon the area or position only if specified in their mission or so directed by competent authority.

3404. DEFENSE ECHELONS

The defense consists of three echelons. (See fig. 26.)

a. Security forces which provide early warning of the enemy advance and delay and deceive him as to the true location of the forward edge of the battle area (FEBA).

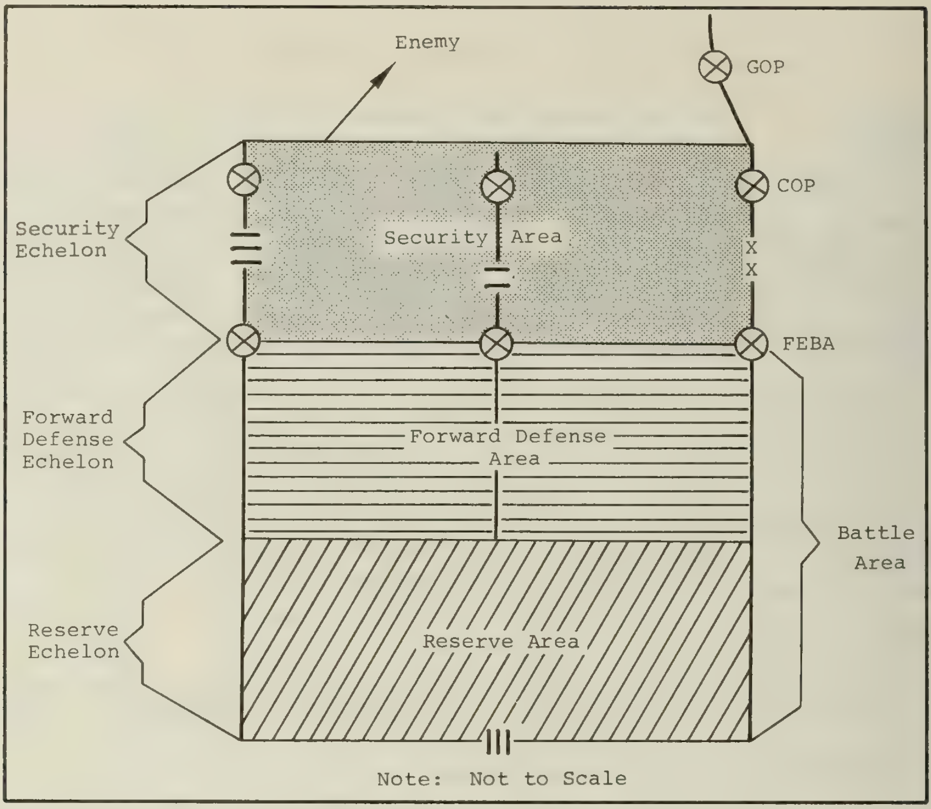


Figure 26.--Diagram of Regimental Defense Echelons.

b. Forward defense forces which engage the enemy in decisive combat or which slow, stop, canalize, or disorganize his attack.

c. Reserves which are employed to limit enemy penetrations and to counterattack to destroy or eject the enemy by offensive action.

3405. FUNDAMENTALS OF DEFENSE

a. General.--The regimental commander plans, organizes, and conducts defensive operations through the application of certain basic principles. The threat of nuclear warfare requires modifications and changes in emphasis on these principles. Instances will occur wherein some of these principles cannot be applied to the maximum. The regimental commander must decide which ones he can use to gain the most advantage and which ones should be used with modifications.

b. Proper Utilization of Terrain.--The regiment in the defense takes maximum advantage of the terrain so that the enemy will be forced to attack organized positions or to make a time consuming maneuver to avoid them. In organizing the defense area, the regimental commander gives primary consideration to those terrain features which must be held to accomplish his mission. When analyzing terrain, the following are considered:

(1) Key Terrain.--Key terrain is any locality, or area, the seizure or retention of which affords a marked advantage to either combatant. The regimental commander may decide to occupy key terrain or he may control key terrain by occupying ground which gives him better cover and concealment adjacent to or forward of key terrain. When he possesses a nuclear weapon capability, he may be able to defend key terrain with comparatively small forces.

(2) Obstacles.--Natural and manmade obstacles are used in organizing the defense in order to augment the defensive strength of the regiment. A corollary effect of the employment of nuclear weapons may be to assist in creating additional obstacles and denying areas to the enemy. Obstacles assist in canalizing enemy troop movements. They must be covered by effective fire, or the enemy may try to bypass them, or he may mass the necessary force to overcome them.

(3) Cover and Concealment.--Woods, vegetation, terrain relief, and field fortifications afford some degree of protection from the primary effect of enemy nuclear and conventional weapons. However, the secondary effects of blast and fires which are likely to occur in wooded and built-up areas must be considered. Concealment, both natural and artificial, is an especially important aspect of passive defense and security.

(4) Observation and Fields of Fire.--Adequate observation is essential to prevent surprise and to bring enemy targets under fire. Conversely, it is necessary to deny effective observation to the enemy in order to reduce the vulnerability of defending forces. Good fields of fire permit destruction of the enemy in the gaps between positions and provide space for the employment of smaller yield nuclear weapons within, and proximate to, the defensive sector. The possession of high ground is valuable for observation and for obtaining fields of fire. Helicopters may be used for observation and for positioning and shifting ground observation posts. Electronic battlefield surveillance devices and infrared equipment are employed to augment visual observation.

(5) Avenues of Approach.--In view of the separation which may exist between units on the battlefield, the regimental commander gives attention to avenues of approach from all directions. The availability and authority for use of nuclear weapons facilitate the control of the avenues of approach to and into the regiment's defense area. The regimental commander analyzes the avenues of approach to determine the probable location of targets for all of his supporting weapons.

c. Security.--Provisions are made to offset the attacker's inherent advantage of maneuver and mass by forcing him to attack under circumstances unfavorable to him. The regiment seeks to deceive the enemy as to the area in which the decision will be sought; to detect the time, direction, and size of the enemy's attack; and to disorganize the attack, canalize it, or force it to present a nuclear target, depending on the overall mission assigned.

(1) Dispersion on the battlefield places emphasis on all-round security. Security of rear areas and administrative and logistic installations assumes an increasing importance. Aviation and reconnaissance units are used for security missions in addition to the organic security means.

(2) Depending upon the plan of defense, the security forces may or may not force the enemy into early deployment. It may be desirable to permit him to advance close to the defense area or into areas where defensive nuclear fires are most effective.

(3) The capability of the regiment to employ nuclear weapons, when authorized, makes the destruction of the attacker by security forces possible.

d. Mutual Support.--Mutual support is that support which units render each other against an enemy, because of their assigned tasks, their position relative to each other and to the enemy, and their inherent capabilities. This applies to units on the flanks as well as to the front and rear. Units should be able to fire flanking fires across a part of the front of units on the right and left. Units in depth support units to the front, flanks, and rear. In an extended defense with wide separation between units, mutual support is achieved by the positioning or movement of units, by the ability of one unit to reinforce another by fire or movement, and by the mobility of reserve, rather than mutual support by interlocking bands of fire. The regimental commander must achieve a compromise between the protection afforded by separation of units and possible reduction in mutual support. In situations where mutual support is achieved primarily by movement, the degree of support afforded by longer range and more powerful supporting weapons is increasingly important.

e. Defense in Depth.--Defense in depth is the siting of mutually supporting defense positions designed to absorb and progressively weaken the enemy attack, prevent initial observation of the whole position by the enemy, and to allow the commander to maneuver his reserve. Positions are selected which protect key terrain, reduce vulnerability to hostile fire, and facilitate support and maneuver of the reserve or striking force.

f. All-Around Defense.--A defensive position should be organized so that it is capable of firing and defending from any direction. This is accomplished by the organization of primary and supplementary positions to which troops and weapons may be shifted to meet threats from any direction.

g. Coordinated Fire Planning.--Coordination of the fires of infantry weapons, tanks, artillery, naval gunfire, and the use of support aviation is carefully planned. The plan of supporting fires provides for bringing the enemy under fire as soon as he comes within observation, holding him under increasingly heavier fire as he approaches, breaking up his assault by fires immediately in front of the position, and destroying him within the position by a combination of fires and counterattack. Plans include the use of antitank weapons and the fire of other weapons which delay or destroy armored weapons, all closely coordinated with the barrier plan. When allocated, nuclear fires dominate the defensive fire support plan. Nuclear fires are planned on all probable areas in which enemy forces may be expected. Nonnuclear fires are planned to assist in the defense of unit positions, to cause the enemy to mass, to augment the effects of nuclear fires, and as an economy of force measure where nuclear fires are not employed. Troop safety is a major consideration in planning nuclear fires, particularly when these fires are planned within the defense area. See section VII for a discussion of fire support planning. In his defensive planning, the commander should employ the various devices available for battlefield surveillance. The remote sensors should be used to augment other intelligence sources to warn of enemy approach to FEBA positions and enemy activity in and forward of the security echelon.

h. Coordinated Barrier Planning

(1) Barrier planning is the employment of a coordinated series of obstacles designed or employed to canalize, direct, restrict, delay, or stop the movement of an opposing force and to impose additional losses in personnel, time and equipment on the opposing force. Barriers are planned initially at the highest level of the force committed in the defense and are progressively refined in detail at lower echelons.

(a) Natural obstacles include steep slopes, gullies, swamps, heavy woods, thick jungle, deep snow, and manmade objects such as buildings not originally erected to serve as obstacles but which may be employed as such.

(b) Artificial obstacles include demolished bridges, road craters, fallen trees, flooded areas, minefields, contaminated areas, wire entanglements, roadblocks, antitank ditches, and log, steel, and concrete structures.

(2) The employment of barriers is a vital element of defensive combat and must be integrated with the overall plan of defense and fire support. Care is taken to ensure that sufficient gaps and lanes in the barrier system permit movement of friendly forces for patrolling and counterattacking.

i. Flexibility.--The regimental commander achieves flexibility in the defense by withholding an adequate reserve to be employed in blocking or counterattacking enemy penetrations and by centralizing control of his supporting fires. Flexibility is increased when nuclear weapons are employed. Flexibility is also enhanced when additional means of transportation such as helicopters and tracked or wheeled vehicles are available to permit the rapid shifting of forces in the defense. The influence of terrain is lessened by the capabilities of the helicopter, and greater dispersion can be accepted without sacrificing mutual support or committing the reserve rapidly in any threatened area.

j. Maximum Use of Offensive Action.--Commanders and troops must be psychologically conditioned to go rapidly from the defense to the offense. In fluid situations with wide frontages and great depths, there are many opportunities to retain the initiative by offensive action. Counterattack is often a decisive element in defense and is the principal means by which a defender gains the initiative. Aggressive patrolling is used to maintain the spirit of the offense, to deny the enemy knowledge of friendly positions, and to avoid surprise.

k. Maximum Separation Consistent with Mission.--The regimental commander is constantly faced with weighing his vulnerability as a result of too great a concentration of his force against the possibility of defeat in detail by enemy infantry or armor as a result of dispersing his unit too widely. He cannot disperse so widely that he no longer can accomplish his mission. It is preferable for the battalions of the regiment to fight as integrated units. However, a battalion on occasion may utilize limited separation of its companies when they are appropriately reinforced.

l. Time.--Time available for planning and preparing for the defense will influence the employment of forces, preparation of obstacles, coordination of fires, and priority of tasks.

3406. COMMAND AND STAFF ACTION IN DEFENSE

Efficient troop leading procedures ensure concurrent planning and reconnaissance, competent staff action, timely decisions, and rapid occupation and organization of the position. They enable the regimental commander to best use the time available to him. The regimental commander follows a logical sequence in his planning so that he and his subordinates can utilize the available time to best advantage.

3407. DEFENSE PLANNING

a. General.--A defensive plan consists of a scheme of maneuver and a fire support plan. Both are developed concurrently and are closely integrated. The defense plan also covers the essential details of counterattack planning, security, logistic support, and the establishment of the communications system necessary for control.

b. Defensive Mission

(1) The first step in developing a scheme of maneuver is a thorough analysis of the regimental mission and a consideration of all available information about weather, terrain, and friendly and enemy forces. The commander must study his order to ensure he understands all tasks, stated and implied, which the regiment must accomplish. Normally, these tasks are stated in terms of a specific sector which must be defended.

(2) The regimental commander usually designates the trace of the FEBA and the initial location of the combat outpost (COP), when used. He designates the responsibility of the regiment along the FEBA (and, if appropriate, along the line of combat outposts by specifying the location of regimental boundaries and coordinating points. In the mobile defense, the regimental commander may also specify that the regiment will organize a strongpoint within the area of responsibility.

c. Key Terrain and Avenues of Approach

(1) The commander performs a detailed reconnaissance of the area by foot, air, or motor vehicle. Based upon this reconnaissance and other information obtained, he analyzes his defensive sector to determine which terrain feature(s) must be controlled by him to accomplish his mission. If the seizure would afford a marked advantage to either opposing force, it is a key terrain feature and should be controlled by the defender.

(2) The defender is not rigidly bound to physically occupy key terrain features; he may control entry to them or, in conjunction with fires, defend them with comparatively small forces. It may be necessary to defend key terrain features in strength. The commander may elect or be ordered to relinquish key terrain temporarily as a part of the scheme of maneuver.

(3) After a determination of key terrain, the commander analyzes the avenues of approach into this sector from all directions. He also considers avenues of approach to be used by elements of his force in the counterattack. The commander analyzes the observation, fields of fire, concealment, cover, and obstacles in the sector. He also considers possible improvement of the obstacles and use of barriers to enhance his defense. From this analysis of his defensive sector, he determines how he can make best use of the terrain within available resources to accomplish his mission.

d. Forces to be Employed

(1) As the commander analyzes the terrain in his sector, he considers the degree of resistance which he will establish at each major avenue of approach based upon his visualization of what will be required to hold the terrain or execute the required delay.

(2) The strength to be employed along the FEBA, the width of the sector assigned to each unit, and the specific locations of blocking positions selected for preparation and occupation (or for preparation and possible future occupation) depend upon the mission, the size of the area, strengths of the units, enemy capabilities, and the capabilities of the defender.

e. Frontage and Depth

(1) The regimental commander assigns proportionate frontages according to the natural defensive strength and importance of each area. Sufficient frontage and depth are assigned to permit the force to disperse as the mission will permit.

(2) The regimental defensive disposition is based upon the capabilities of subordinate battalions. Generally, on ideal terrain with three companies forward, frontages up to 4,500 meters with depth of about 2,000 meters are possible. Within the battalions, companies are capable of conducting a defense on ideal terrain with frontages up to 1,500 meters and with depths of about 1,100 meters. These are considered to be the maximum frontages; the frontage will normally be considerably less. Conditions which limit visibility and the fields of fire of the defender, offer good avenues of approach to the enemy, or reduce the combat power of the defender which will habitually reduce this maximum frontage. The actual capability of the regiment in any given situation can only be determined after a complete estimate of the situation.

(3) The assignment of frontages in excess of the regiment's capability to physically occupy and defend will require coverage of the less critical areas through patrols, firepower, observation posts, listening posts, minefields, and other means. In effect, this will result in gaps which must be covered by as many of the above mentioned means as are available. An enemy attack through these gaps must be detected, located, fired upon, and if the need arises, blocked and/or destroyed by the fire and maneuver of all or part of the regiment. In this regard, the regiment plans to occupy a perimeter when forced by enemy action, retention of a particular terrain feature is imperative to the regimental defense, or there is danger that the regiment will become isolated from other friendly defending units.

(4) In the assignment of frontages to forward units, the commander also considers the additional support which may be rendered to them (e.g., additional combat forces in support or attached, assignment of artillery final protective fires (FPF's), etc.) in order to equalize defensive tasks.

f. Dispersion and Mutual Support

(1) The commander is constantly faced with the problem of weighing the vulnerability of the defending force which will result from either

concentration or dispersion. Nuclear weapons available for defense may assist materially in providing a solution to the problem of controlling large areas since they can destroy enemy forces of significant size. Chemical weapons may be similarly employed. Normally, when dispersion of forces is necessary,it is between, rather than within, the battalions of the regiment. They must be able to operate with substantial gaps between them on a battlefield of considerable width and depth. The dispersion presents a problem in surveillance, in massing nonnuclear fires, in mutual support, and in reinforcement.

(2) In planning the regiment defense, care is exercised to ensure a proper balance between concentration and dispersion. Dispersed personnel and equipment at every echelon should be capable of accomplishing the mission. The depth of the area assigned to the forward elements is comparatively shallow in relation to the overall depth of the area. However, adequate space is assigned for weapons employment control facilities, logistic elements, and to establish alternate and supplementary positions.

(3) In determining the forces required on the FEBA, the size and location of the reserve are also considered. Sufficient combat power is allocated to the reserve after consideration of the mission, enemy situation, terrain, and combat power available. The reserve may consist of troops and nuclear weapons or troops alone. Appropriate missions for the regiment reserve include:

(a) Providing portions of the combat outpost.

(b) Preparing and occupying blocking positions.

(c) Conducting counterattacks.

(d) Assisting forward elements, when practicable, through use of organic fire support.

(e) Providing flank and rear area security.

(f) Preparing to assume mission of forward elements on order.

(4) The reserve position(s), alternate, and supplementary positions are selected so as to ensure defense in depth, permit all-around defense and provide flexibility. Positions are on or near key terrain features or major avenues of approach.

(5) The reserve is normally required to prepare alternate or supplementary positions. Appropriate orders specify the priority of construction of these positions. When the regimental reserve is not working on positions, manning the combat outpost, or performing surveillance missions in the regiment rear area, it usually occupies the reserve positions having the highest priority for defense. These positions may be completely or partially occupied with the remainder of the reserve dispersed in the vicinity.

(6) The reserve should be prepared to move quickly to threatened areas. Helicopters may be used to shift reserves rapidly. LVTP's afford limited protection for the reserve and a capability to concentrate power rapidly from dispersed positions to participate in a counterattack.

g. Security Measures.--The combat power employed for security and the measures taken are determined after consideration of the mission, enemy situation, terrain, and combat power available. Consideration is also given to the degree of security provided by security elements of higher headquarters (i.e., covering forces and general outpost (GOP) forces).

h. Defensive Fires.--Defensive fires are divided into four general categories: long range fires, close defensive fires, final protective fires, and fires in support of the counterattack.

(1) Long range fires are designed to engage the enemy as soon as possible after his discovery and prior to the time he forms for the attack. These fires are provided by supporting aircraft and long range weapons whose employment does not indicate the location of forward elements of the battle area. If supporting weapons are employed on the combat outpost or general outpost, their initial fires fall into this category. The planning of long range fires is primarily a task of echelons above the regiment. To achieve surprise and deception and avoid a standard pattern of defense, long range fires sometimes are not employed.

(2) Close defensive fires include counterpreparation and fires to disrupt the enemy attack once it has been formed but prior to the assault. Such fires are planned for all available weapons. The planning, control, and execution of close defensive fires is a matter of direct concern to the forward regiment commander.

(3) Final protective fires are emergency fires planned to prohibit or break up the enemy assault forward of the FEBA. They are a cardinal element in predetermined fires of automatic weapons, artillery, and mortars, reinforced by the fires of all other weapons. These fires are delivered on call of a threatened unit and are first priority fires.

(4) Fires in support of the counterattack include fires within the battle area which are planned to destroy or limit penetrations and to support counterattacks. They include fires from direct fire weapons capable of firing into the penetrated area.

i. Fire Support Means

(1) Antitank Weapons.--Principal antitank weapons organic to infantry elements are employed to cover avenues of armored approach. Flanking fire, mutual support, and depth are sought in antitank weapon positions. Assignment of the same sector of fire to two weapons employed in depth is desirable.

(2) Artillery Fires.--Fires in support of defensive operations include long-range fires, close defensive fires, final protective fires, and fires within the battle area. Final protective fires will be located where they can best augment the fires of weapons organic to the supported unit. An artillery battery will be assigned only one FPF. The location of this fire is fixed once it has been established. The width of an artillery FPF is based on the bursting width of the rounds; the depth is based on size of burst and range dispersion and therefore must be considered approximate. The maximum width of a 105mm howitzer FPF is 200 meters and that of the 155mm howitzer is 300 meters. The shape or pattern of artillery FPF may be varied to fit the tactical situation.

(3) Tanks.--The most effective utilization of the tank's capabilities is achieved when they are employed en masse in offensive action. In the defense, such employment is realized from their commitment to the counterattack or other offensive action with the reserve. However, the mobility of tank units permits their initial employment in supporting the defense by fire from prepared positions and subsequent massing for offensive action as required. When terrain is not favorable for offensive action, tank units may support infantry exclusively from static positions. Utilization in this manner restricts the tanks' mobile character even though effective direct and indirect antipersonnel or antitank fires can be achieved. See FMFM 9-1, Tank Employment/Antimechanized Operations, for detailed information on the employment of tanks in the defense.

(4) Weapons of the Regimental Reserve.--Planning for an employment of the regimental reserve weapons include the following:

(a) Fire plans are developed to support the primary defensive positions of the regiment. Concentrations for indirect support weapons are planned on likely avenues of approach, on possible enemy observation posts, and in areas where the enemy may regroup to continue the attack if he is successful in penetrating the position.

(b) Direct fire antitank weapons are employed to add depth to the antitank defenses of the battle area. Mutual support is desirable between these weapons. Division antitank elements and tanks in support of or attached to the reserve regiment are so disposed as to increase the depth of the antitank defense. Tank units can be utilized to participate in counterattacks of the reserve regiment and to reinforce the fires of the reserve regiment.

(5) Tactical Air Support.--The mobility and long-range striking power of air support make it an important means of countering the enemy's attack.

(6) Naval Gunfire.--When naval gunfire is available during defensive operations, these fires are incorporated into the fire support plan along with the fires of other supporting weapons.

j. Nuclear Fires.--(See par. 3702.)

3408. SECURITY FORCES IN DEFENSIVE OPERATIONS

a. General

(1) When available, air and ground security echelons are used to provide distant security. These advance covering forces are normally controlled by commands higher than regiment. Regiments may have temporary control of such forces on occasion.

(2) Security and surveillance measures may include the establishment of a combat outpost for area defense and observation posts for a mobile defense, flank security, and antitank and air defense elements. Reconnaissance patrols, local security, observation and warning systems, and the use of camouflage, concealment, obstacles, and barriers are further security measures employed in the defense.

(3) The regimental commander plans adequate security and surveillance measures to ensure coordination and effective execution.

b. General Outpost.--The GOP is the division security element. The force commander normally prescribes the general location of the GOP. This outpost is used in area defense when there are friendly forces on either flank. When augmented by additional means of mobility and combat power, it may be used in a mobile defense.

(1) The general outpost warns of the enemy approach and provides time for units to prepare the battle area. It covers the withdrawal of a covering force, if used, and denies the enemy ground observation of the battle area. It delays the enemy advance to the limit of its capability without becoming inextricably engaged and deceives him as to the true location of the battle area.

(2) The general outpost normally consists of all or portions of a reserve infantry regiment reinforced with combat support and combat service support units. Depending upon the location of the general outpost, it may be supported either by attached artillery, by artillery located in the battle area, or by artillery firing from position areas between the battle area and the general outpost. It is as mobile as conditions permit using vehicular transport or helicopters and may be reinforced with additional combat support elements.

c. Combat Outpost

(1) Mission.--The combat outpost is a security element of the regiment. The primary mission of the COP is to provide early warning and information of enemy movements, to provide a counterreconnaissance screen, and to deny the enemy close ground observation of the battle area. Within its capabilities, the combat outpost delays and disorganizes the enemy and attempts to deceive him as to the true location of the battle area. It does not normally engage in close combat. The combat outpost provides target information for supporting fires.

(2) Composition and Organization

(a) The strength and composition of the combat outpost varies with the distances involved. For each forward battalion in the battle area, this variance may extend from a rifle platoon to a rifle company reinforced with machineguns, mortars, antitank weapons, tanks, and reconnaissance elements. Artillery and mortar support is usually given from positions within or to the rear of the battle area through forward observers operating with the combat outpost.

(b) The combat outpost is organized as a series of outguards with appropriate sentinels and patrols. It may be ordered to maintain contact with security forces to the front and flanks. The strength of the combat outpost may be reduced as long as other security forces remain to the front and observation is good. During reduced visibility and when contact with the enemy is expected, the strength should be increased.

(3) Location.--The combat outpost is normally located on the first suitable high ground forward of and within supporting distance from the FEBA. Where possible, the location should:

(a) Afford long-range observation and fields of fire.

(b) Provide obstacles to the front and flanks.

(c) Provide cover and concealment on positions.

(d) Provide covered and concealed routes of withdrawal.

(e) Deny the enemy close ground observation of the battle area.

(4) Control

(a) Control of the combat outpost may be exercised through the reserve battalion commander or through the commanders for forward battalions. It withdraws on order of the commander controlling its actions. If the situation warrants, the outpost commander may order the withdrawal on his own initiative. The combat outpost should be withdrawn before it becomes involved in close combat.

(b) Troops for the combat outpost may be furnished by the battalions or the regimental reserve. When controlled through the reserve battalion commander, troops are normally furnished by the reserve battalion. If forward battalion commanders control the outpost, troops may be provided by the forward battalions or the regimental reserve.

(5) Conduct.--The combat outpost maintains contact with and assists the withdrawal of other security forces to the front. Early contact with the enemy is gained and maintained by the use of patrols, security detachments, and observers which bring the enemy under long range fire and supply essential enemy information to the battle area. The combat outpost brings an increasing volume of fire on the enemy as he approaches the outpost position, and it resists until the strength and proximity of the enemy require it to withdraw. Withdrawal is made over previously selected routes so that fires from the battle area can be coordinated with the withdrawal. The units in the battle area assist in covering the withdrawal. Contact is maintained with the enemy at all times by a combination of patrols and observation. The combat outpost is reestablished at the first opportunity after it has been forced to withdraw.

d. Local and Rear Area Security.--Local and rear area security is provided by foot patrols, observation posts, motorized patrols, listening posts, and road guards. Helicopters and fixed-wing aircraft are used extensively to reinforce other surveillance means during the hours of daylight. Areas of surveillance responsibility coincide with unit boundaries. The regimental reserve is ordinarily assigned a mission of rear area security for the regimental defense area until committed in a blocking or counterattack role. An infantry regiment in division reserve may perform the same mission for the division rear area.

e. Flank Security

(1) Constant information on the situation in adjacent areas is necessary for adequate flank security. This information is obtained by patrols, observers, and liaison personnel. If observation to the flanks is poor from the observation posts, specially placed ground observers, patrols, or air observers are used to supply prompt information.

(2) Exposed flanks are secured by units located to block the principal approaches. The observation of these units may be extended by patrols and the use of infrared equipment. Demolitions, obstacles, minefields, and contaminants may be used to assist in blocking these approaches.

Reserve units prepare positions to protect the exposed flanks of the defense area.

f. Security Against Attack by Aircraft

(1) Security against aircraft is achieved by warning, camouflage, concealment, dispersion, and fire.

(2) A warning system is organized and coordinated with the antiaircraft warning system organized by higher commanders. The warning system includes the use of all existing intelligence and communication facilities, measures of identification, and the most expeditious means for timely dissemination of information.

(3) Security plans include conditions under which infantry weapons are used against hostile aircraft.

(4) Measures for concealment are taken to defeat or minimize hostile air reconnaissance and photograph.

g. Security Against Attack by Airborne Forces

(1) Security against airborne attack includes air defense measures, a warning system, troops available to defend likely objectives, and mobile reserves.

(2) Attacking airborne elements are normally dispersed during the initial phases and can be dealt with most effectively during the period before they consolidate.

(3) To ensure rapid reaction to such an attack, prior planning, including detailed reconnaissance of the area to locate probable drop and landing zones, is necessary.

(a) Good observation throughout the area, an effective warning system, and good communications are essential.

(b) Mobile reserves should be located within striking distance of probable landing areas.

(c) Armor elements are especially effective against airborne forces, particularly during the early stages of their operation on the ground.

(4) Small-scale enemy airborne operations may be eliminated by units located n the rear area. If local units are not able to defeat the attacker, they form a base for counterattack by stronger reserves.

(5) A large airborne attack must be considered a part of the main battle, and major combat forces are committed against it under direct control of the regiment.

h. Security Against Guerrillas and Infiltration

(1) The element of surprise in guerrilla and infiltration tactics is lessened or eliminated by establishing an observation and warning system and by ensuring that all units and installations maintain effective local security. In addition, a mobile force is designated from the

reserves and assigned the mission of destroying any enemy force which gains access to the area.

(2) The regimental commander prepares effective plans for dealing with these types of action. Extensive observation posts or patrols are established where necessary during periods of poor visibility and to cover gaps between units. Roadblocks, checkpoints, and other security and control measures are required to guard against infiltrators and guerrillas. The regimental commander designates a rear area commander, usually the reserve battalion commander, to coordinate the defense of the regimental sector in the rear of the forward battalion area. The rear area commander ensures that defense plans of all units and installations within the area are integrated into the overall defense plan and that complete surveillance of the entire area and adequate communication systems are established. He may designate a mobile alert force to destroy enemy forces entering the area.

(3) The regiment employs helicopter patrols and reconnaissance aircraft to locate enemy guerrillas and infiltrators, and helicopterborne units to followup and capture or destroy any enemy discovered. Helicopters position and support outposts and patrols in difficult terrain likely to be used as avenues of approach by infiltrating forces. Helicopters may also be used to position units to block enemy avenues of escape so that infiltrators or guerrillas may be encircled and destroyed.

(4) An infantry regiment in division reserve may be assigned the mission of defending the division rear area against guerrilla and infiltration attacks. The organization for defense against these type actions is similar to that for the battle area. An adequate observation and warning system is established, all units and installations provide their own local security, and mobile alert forces are designated. An extensive observation and warning system ensures timely exchange of information between all units and installations in the division rear area. Since the area to be covered is much larger than the battle area, numerous motorized or helicopterborne patrols may be required. Infantry battalions in the division reserve regiment usually are assigned specific areas of responsibility. As far as practical, mobile alert forces are centrally located to permit rapid movement to any portion of the area.

i. Communications for Defensive Operations.--How elaborate a communication system will be in a defensive situation generally depends upon the time available and the communication facilities in operation. Advance planning by communication personnel is essential. A well-organized and strongly manned defense will permit a more extensive employment of tactical communications. Actions and duties are similar to the attack, but the communication system is more elaborate and inclusive. Time usually is available to improve the system, including selection and preparation of alternate command posts which are located further to the rear than in the attack. When the defense is adopted hastily, the communication facilities available are continued in use. These facilities are supplemented as time and tactical situation permit. In the defense, the communication system interconnects all major command elements. It provides entry into the communication system for covering forces, outposts, and the reserve as required. Entry into the system may also be required for other units and activities, such as airfields, attached troops, combat service support activities, and the echelon of the defensive force headquarters. Normally, communication facilities do not move frequently when the friendly force is engaged in defensive operations. Nevertheless, personnel must be prepared to displace on a moment's notice. Special messengers are required during the organization of a defensive position. After organization is complete, the messengers normally revert to scheduled messenger runs. Visual signals may be used to advantage. Panels or other visual means are used to mark frontlines. Panels may be used to pass brief messages using prearranged codes if visibility conditions, such as darkness or jungle canopy, do not preclude their use. Radio communications are subordinate to multichannel radio, wire, and messengers. Radio nets remain open but on guard only to supplement the multichannel facilities if interrupted. Wire communications are employed extensively and are made as elaborate as time and capabilities permit. High priority circuits are established as rapidly as possible to meet immediate requirements. Thereafter, additional circuits are installed to increase traffic capacity and flexibility. The form of defense adopted will influence the type of communications needed. See FMFM 10-1, Communications, for additional details.

3409. TYPES OF DEFENSE

The two basic forms of defense are the area defense and the mobile defense. These two forms of defense lie at opposite ends of the scale in conducting defensive operations. Often the most suitable form of defense in a given situation will be a variation of either the area or mobile defense, incorporating elements of both.

a. Area defense is oriented toward the retention of specific terrain. In this type of defense, forward positions are strongly held and emphasis is placed upon stopping the enemy forward of the battle area. If the enemy penetrates the area, he is destroyed or ejected by counterattack with the principal objective of regaining control of the forward defense area.

b. The mobile defense is normally conducted by division and higher echelons. It is based upon skillful use of maneuver and fires to destroy the enemy. Minimum combat power is employed in the forward defense area to warn of impending attack, delay and disorganize the enemy, and to canalize the attacking forces into areas suitable for counterattack by the reserve force. The bulk of combat power is retained in a strong mobile reserve positioned for offensive action and has the principal objective of destroying the enemy.

c. The regiment has a limited capability of conducting a mobile defense. It normally participates as part of a larger force conducting such a defense. In such an operation the regiment may be employed as part or all of the security forces, as part of the forward defense forces, or as a part of the reserve. When a regiment is employed on the FEBA, it may accomplish its mission by conducting a delaying action, an area defense, or some variation thereof. The exact method to be employed is established by the higher commander who informs the regiment of the mission he desires accomplished and the concept for the conduct of mobile defense.

3410. AREA DEFENSE

a. General

(1) Area defense is employed when adequate mobility for forces is not available or suitable terrain for mechanized movement does not exist

and air cover does not prevail. Emphasis is placed on retaining control over specific terrain and reliance is placed on forces deployed on positions with supporting fires to stop and repulse the attacker. Sufficient forces are disposed in the forward area to dominate the terrain being defended. It may not be possible or advisable to physically occupy all key terrain in the defended area, but sufficient combat power must be available to dominate the area. A reserve is employed to block and destroy the enemy if possible, to eliminate penetrations if they occur, or to reinforce threatened forces. Therefore, as contrasted with the mobile defense, the forward defense area normally has a higher priority for forces than does the reserve.

(2) The regiment organizes and conducts an area defense when specified by higher headquarters or when the mission requires the retention of specific terrain. This type of defense, however, does not normally make an effective use of mobile combat power as does the mobile defense. See figure 27 for an example of area defense.

b. Planning the Area Defense

(1) The defense plan is evolved from a detailed reconnaissance of the area and an analysis of the situation to determine the most effective way to use the terrain and available resources. It provides for security forces, forward defensive forces disposed in depth, and a reserve. It indicates the location of the forward defense area, provides fire support to all defensive echelons, and provides for additional obstacles and barriers to improve the natural defensive strength of the terrain.

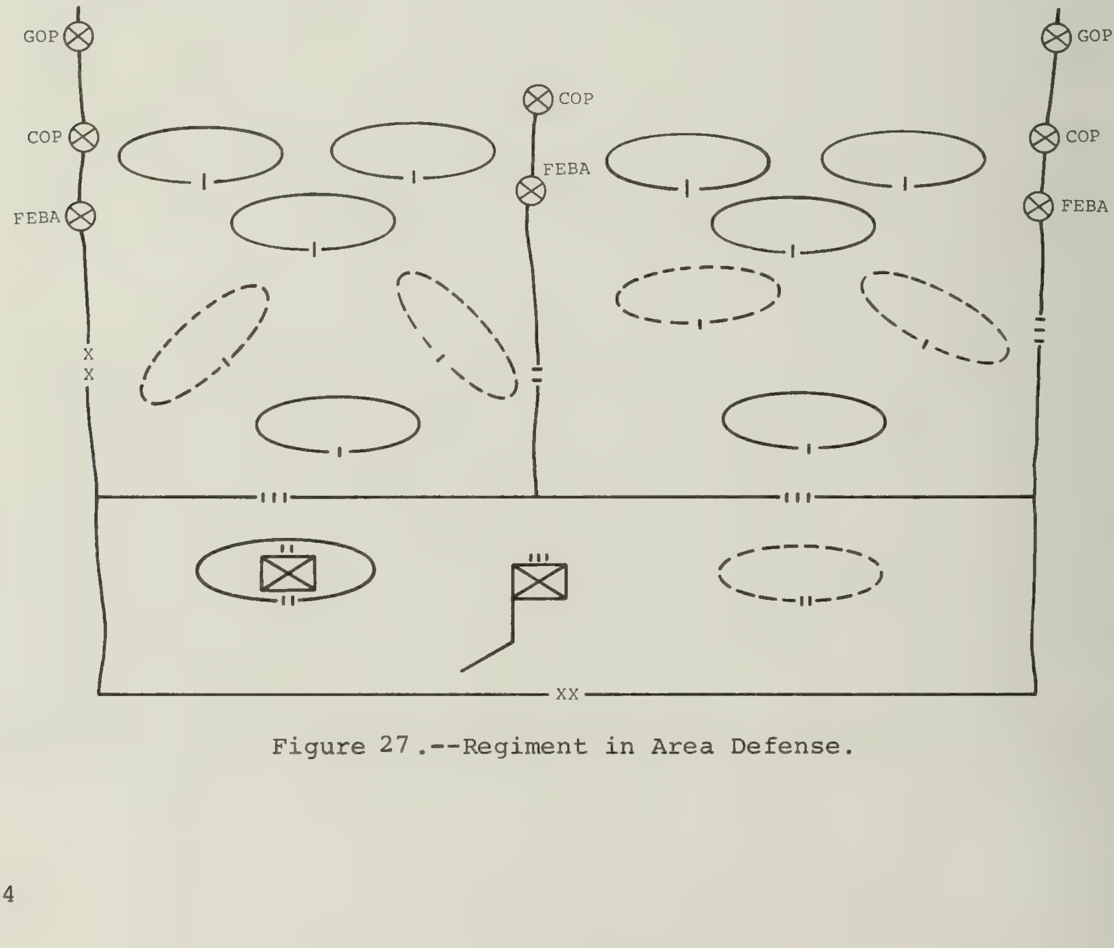


Figure 27.--Regiment in Area Defense.

(2) The operation plan (order) will indicate the following:

(a) Location of covering force or GOP when used, and the general trace of the COP.

(b) Location of FEBA and forward defense area.

(c) Location of reserve.

(d) Boundaries and coordinating points.

(e) Organization for combat.

(f) Missions to major subordinate units.

(g) Fire support plan. This plan is normally issued as an annex to the operation order or as separate annexes (air, NGF, artillery) within the framework of the commander's plan of fire support.

(h) Barrier plan. This plan is normally issued as an annex to the operation plan.

(i) Counterattack plans. These plans are normally issued separately, but reference the basic defense plan.

(j) Communication plan.

(3) Counterattack plans are prepared as outlined in paragraph 3412. The primary function of the counterattack in the area defense is to destroy or eject penetrating forces and to regain control of the battle area.

c. Organization of the Area Defense

(1) The area defense is organized basically to provide security and prevent surprise, to stop and repel an enemy attack, and to destroy or eject a penetration of the defended area. Therefore, the regimental commander provides for defensive echelons to include security forces, forces to organize and occupy the forward defense area, and a reserve.

(2) The FEBA normally is designated by higher headquarters by establishing coordinating points. Coordinating points for the covering force or GOP are also normally designated by higher headquarters to ensure coordination with adjacent units. Based on the mission of the regiment and a detailed reconnaissance to determine avenues of approach and key terrain, the commander designates defensive areas, establishes boundaries and coordinating points for major subordinate units, and designates the location of the reserve.

(3) The division uses a covering force or GOP as appropriate. This force is initially positioned to take advantage of natural obstacles and to deny the enemy ground observation of and ability to deliver artillery fire into the forward defense area. The GOP is described more fully in paragraph 3408.

(4) The combat outpost is a security element of the regiment in the security area. It is located to provide timely warning of the enemy's approach and to deny the enemy close ground observation and direct

fires into the forward defense area. The division commander prescribes the general location of combat outposts to the extent necessary to ensure the provision of security.

(5) The forward defense area is organized into a series of defensive areas which provide good observation and natural defensive strength. Positions are prepared to block avenues of approach at the FEBA and in depth to control the area. The bulk of the regiment's combat power is committed to defending the forward defense area. The natural defensive characteristics of the terrain are increased as time permits by the use of artificial obstacles, fortifications, and barriers.

(6) The reserve is positioned so that it can execute counterattack plans and contain penetrations from the front or flanks. The reserve ensures the continuity of the defense by counterattack to destroy enemy penetrations, by reinforcing forward elements, or by executing blocking missions.

d. Conduct of the Area Defense

(1) The attacking enemy normally is taken under long range fire as early as possible unless deception is an essential element of the defense. As the enemy advances, he is then taken under fire by elements in the security area. These security forces warn of enemy approach, deceive, and delay without becoming decisively engaged. They attempt to inflict maximum casualties on the enemy and to force him to deploy his main forces prematurely.

(2) In the area defense, emphasis is placed on blocking avenues of approach at the FEBA and defending in depth to hold the terrain. Forces in the forward defense area exert every effort to halt the enemy. If the enemy penetrates the area, however, the forward defensive forces canalize him and force him into areas favoring counterattack.

(3) The counterattack is the principal means of eliminating a penetration and restoring the integrity of the battle area, if the penetration has previously been slowed or halted by friendly fires.

e. Counterattack in the Area Defense.--(See par. 3412.)

3411. PERIMETER DEFENSE

a. General.--A perimeter defense is a variation of the area defense in which a unit is disposed to meet attack from all directions simultaneously. The frontages occupied by the elements defending the perimeter approximate those of the area defense. A Marine infantry regiment may adopt a perimeter defense when on an independent mission, following a helicopterborne or air-landed operation, when isolated from other friendly units by enemy action, or on special operations. Normally, a regimental perimeter defense will be organized only when the situation precludes dispersion. It is preferable to organize separated but mutually supporting battalion perimeters. The size and general trace of the perimeter to be organized depends upon the nature of the terrain to be defended, communications and fire support available, the mission and mobility of the defending unit, and the size of the reserve the commander considers necessary. Generally, the commander seeks to establish as large a perimeter as he can adequately defend, in order to provide maximum dispersion within the perimeter. (See fig. 27.)

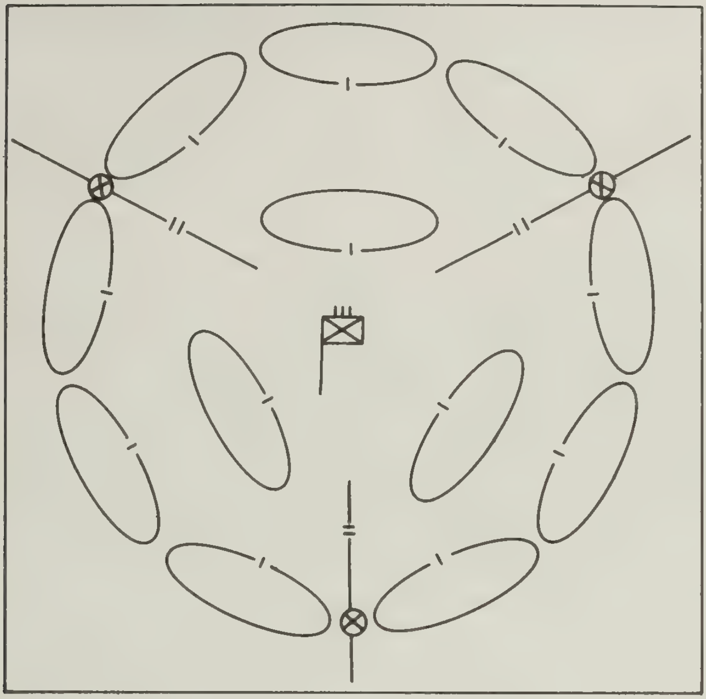


Figure 28.--An Infantry Regiment in a Perimeter Defense.

b. Disposition of Troops

(1) When the regimental commander establishes a perimeter defense, he disposes the bulk of his forces to form a perimeter and positions an adequate reserve to provide depth. The perimeter consists of a series of mutually supporting positions organized to take advantage of observation and fields of fire afforded by dominating terrain. Natural obstacles such as rivers and swamps are exploited to strengthen the defense and allow the concentration of forces on likely enemy avenues of approach. All elements and installations of the regiment are normally located within the perimeter.

(2) The regimental commander may organize a perimeter defense with three battalions on the perimeter or with two battalions on the perimeter and one in reserve. Employment of three battalions on the perimeter permits use of the maximum number of battalion and company weapons on the perimeter and permits defense of a larger area, but requires the use of composite units as regimental reserve. A two-battalion perimeter permits the remaining battalion to be employed as the regimental reserve, but may not provide sufficient area within the perimeter for employment of supporting weapons or dispersion. An unbalanced perimeter may be organized when natural obstacles or other considerations permit its use. Narrower frontages are assigned units responsible for blocking major enemy approaches. This permits larger reserves to be maintained and provides increased depth to the perimeter.

(3) Boundaries and coordinating points are assigned, based on the same considerations as apply to other forms of position defense.

c. Employment of Weapons

(1) Ideally, both organic and supporting weapons are positioned so that they support the entire perimeter. In an unbalanced perimeter they may be initially oriented to support forces defending against the most likely enemy avenues of approach.

(2) Tanks may be held in positions of mobile readiness or may be placed initially in primary firing positions, both on the perimeter and in depth. If held in positions of readiness, firing positions and routes to these positions must be prepared in advance. In either method of employment, supplementary positions for tanks should be prepared for rapid tank-infantry team employment to support counterattacks to restore the perimeter. Supporting artillery is located so that it can provide close defensive fires for the perimeter. However, when support artillery is located within the perimeter to protect it from enemy action, minimum range restrictions may preclude its use for close defensive fires in some areas. In this case, artillery is located so that it can place close defensive fires on the most dangerous enemy avenues of approach.

d. Fire Support Planning.--Fire support planning for a perimeter defense is basically the same as in any other position defense, however, the problem is complicated by the necessity for planning fires to engage an enemy attack from any direction. Coordination of the fires of all infantry weapons, tanks, artillery, naval gunfire, and close air support is carefully planned and expressed in orders. This includes the use of antitank weapons closely coordinated with the barrier plan. See section IV, chapter 2, and section VII, chapter 3, for further information.

e. Barrier Planning.--Natural and artifical obstacles are utilized to the maximum in organizing the regimental perimeter. Antitank and antipersonnel mines as well as barbed wire, flares, and warning devices are also used. Plans include detailed instructions to subordinate units for the construction and location of barriers. Sufficient lanes are left in barriers to permit movement of friendly patrols and counterattack forces. Obstacles are covered by fire if maximum effectiveness is to be obtained.

f. Security.--Active security measures are employed to gain early information of the enemy and provide warning of his approach. Patrols, including helicopterborne patrols, are dispatched both day and night to gain and maintain contact with the enemy. Patrol plans are prepared in detail and carefully coordinated with fire support and barrier plans.

(1) Aircraft, including helicopters when available, are utilized both day and night to give early warnings. Of particular importance is the use of aircraft at dawn to detect any enemy movement into surrounding areas during the hours of darkness. Air reconnaissance must be closely coordinated with patrols.

(2) Each battalion will establish local security as in any area defense. This local security, in addition to establishing observation and listening posts, may include shifting troops from the reserve to cover gaps between units on the perimeter at night and during other periods of reduced visibility.

(3) To supplement these active measures of security against infiltration and surprise attack, extensive use is made of all the passive means available such as wire, booby traps, illuminating devices, infrared equipment, sound detection devices, and surveillance radars.

(4) When the enemy withdraws, contact should be maintained by patrols and security should be reestablished.

3412. COUNTERATTACKS

a. General

(1) A counterattack is a limited objective attack designed to destroy the enemy within the penetrated area and to regain lost portions of the battle area and, under certain circumstances, to restore security elements forward of the battle area. All combat elements participate in the counterattack. The reserve is normally the maneuvering force and is supported by all weapons of the parent organization to include weapons of the forward units. A single coordinated blow is delivered by as large and strong a force as the situation and the terrain permit. The reserve is committed as a unit unless the terrain or threats in other areas prevent it. All friendly elements located within the penetration are placed under the counterattack force commander once the action begins. (See fig. 29.)

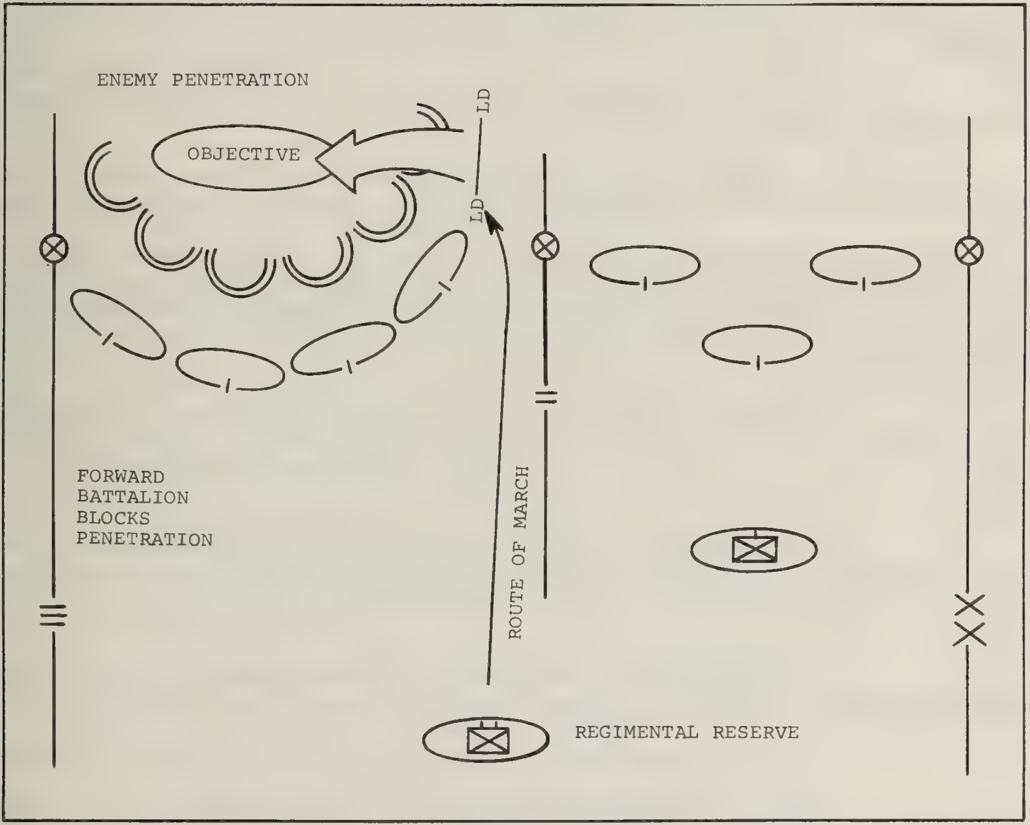


Figure 29.--An Infantry Regiment Executing a Counterattack While Employed in the Area Defense.

(2) The regimental commander prepares counterattack plans for each part of the battle area which he estimates may be penetrated. He prepares them on the basis of assumed penetrations. The counterattack plans are prepared in advance from the viewpoint of terrain features which, if lost, would threaten the area. Retention of the high ground offering good observation and dominating the avenues of approach into the position normally has the highest priority in counterattack planning. These plans are then prepared in order of established priority and are rehearsed within the selected penetration or on similar terrain. if rehearsals are impracticable, unit commanders are conducted over the ground and preliminary plans are explained to them on the ground. Attached and supporting unit representatives of the temporary reserve are present at rehearsals and maximum coordination is effected by all elements concerned.

b. Counterattack Planning

(1) Elements of Counterattack Plans

(a) Objective.--The objective assigned to the maneuver force in the counterattack is usually a key terrain feature within the penetration, the seizure of which is essential to the elimination of the penetration and to the success of the defense of the area.

(b) Direction of Attack.--If the terrain permits, the attack is designed to hit the flank of the penetration and avoid friendly defense areas.

(c) Line of Departure.--To ensure coordination, a line of departure may be designated.

(d) Assembly Areas and Routes.--If required to ensure coordination and control, the commander designates assembly areas and routes.

(e) Composition of the Maneuvering Force.--The counterattack plan designates the maneuvering force. The entire reserve is designated unless the terrain prohibits or unless employment of a portion of the reserve on other missions is contemplated or has been restricted by higher headquarters.

(f) Designation of a Force to Block the Enemy Penetration. --The unit responsible for blocking the enemy penetration is designated. Usually this will be the unit in whose area the assumed penetration is located.

(g) Assignment of Missions to Other Units.--Units or elements not designated as part of the maneuvering force or the blocking force are directed to continue present missions and support the counterattack by fire.

(h) Fire Support.--All available weapons are used to support a counterattack. The fire support plan includes the following:

1 Fires to support the maneuvering force.

2 Fires across the base of the penetration to destroy the enemy forces attempting to enter or leave the area of penetration.

3 Fires within the penetration area.

(i) Use of Attached and Supporting Weapons.--Fires from supporting units are carefully coordinated and planned and are used to the maximum. Attached units such as tanks are integrated into the counterattack plans to give the counterattack maximum shock action and firepower.

(j) Communications.--Communications are normally used to control the counterattacking force and the weapons that support it.

(k) Actions After Reaching the Objective.--The commander generally defers final decision on the unit that is to defend the regained area. He may specify alternatives to be put into effect on his order.

(l) Temporary Reserve.--A temporary reserve is designated from available personnel until a new reserve is organized. The commander assigns missions and designates a commander for the temporary reserve.

(2) Preparation of Counterattack Plans

(a) Counterattack plans are prepared by frontline battalions and higher echelons.

(b) A forward regiment prepares counterattack plans which prescribe the mission of:

1 The forward battalions (normally the units which will block the penetration).

2 The reserve battalion.

3 Attached or supporting units.

4 The temporary reserve.

(c) A reserve regimental commander prepares counterattack plans to implement the division counterattack plans. In this instance the reserve regiment will normally be the maneuvering force of a division counterattack and its counterattack plan will be similar to a normal plan of attack. Planning for execution of the counterattack should include a rehearsal with all participating combat and combat support units.

c. Decision to Counterattack

(1) Before making the decision to counterattack, a forward regimental commander considers the following questions:

(a) Has the enemy been slowed down or stopped forward of the unit reserve area?

(b) Has fire failed to eject the enemy?

(c) Are available friendly reserves and supporting fires adequate?

(d) Is key terrain lost or threatened?

(2) If the foregoing questions can be answered affirmatively and there is a probability of success, the regimental commander should

launch a counterattack quickly and aggressively, using all available forces. The next higher headquarters is notified once the decision to counterattack is made. If, in the opinion of the regimental commander, the foregoing conditions are not satisfied, then he may decide to employ his forces in a blocking role, leaving the decision to counterattack to the next higher commander. He does not dissipate available forces in fruitless counterattacks that have little likelihood of success.

d. Conduct of the Counterattack

(1) General.--The counterattack is a decisive element of the regimental defense. Its success depends largely upon surprise, boldness, and speed of execution. All available supporting fires are fully coordinated with it. Control of supporting arms and friendly forces within the penetrated area come under the control of the counterattack force commander once the counterattack force crosses the line of departure, regardless of the original chain of command.

(2) Speed of Execution.--The maneuvering force is prepared to act as soon as it receives the regimental commander's order so that the counterattack may strike the enemy when he has lost the momentum and coordination of his attack and is not yet disposed to defend his gains. This period is relatively short and critical.

(3) Action of Tanks.--When they are available, the maneuvering force normally contains a high proportion of tanks. After retaking the objective, the tanks remain in the vicinity of the restored positions to protect the infantry elements in their consolidation and reorganization.

(4) Action After Counterattack

(a) After a successful counterattack the maneuvering force does not usually advance beyond the restored position. Contact with the enemy is maintained by patrols and observation. The maneuvering force normally occupies the necessary defense areas to ensure the integrity of the battle area. Adjustments are made to restore frontlines and constitute a new reserve. The maneuvering force may return to the role of reserve.

(b) If the counterattack fails to take the objective and to destroy the penetrating enemy force, troops dig in and hold the line on which they are stopped. Higher commanders are informed and the new line is held until further orders are received or reinforcements are made available.

e. Employment of Nuclear Weapons

(1) Planning Considerations

(a) Direction of Attack.--The direction of attack strikes the enemy at the point most favorable for the counterattacking force. The counterattack may strike the penetration on the nose or on the flank.

(b) Time of Attack.--Timing of nuclear weapons attack is established after considering:

1 Time that troops can leave the line of departure after the burst.

2 Time it is estimated the enemy will resume the attack.

3 Time the enemy troops will be most exposed.

4 Desirability for poststrikes analysis.

(c) Target Information.--Detailed information of the nuclear target may not be available. The selection of a desired ground zero is based on those facts which are known, logical assumptions, and careful consideration of our troop safety.

(d) Line of Departure.--The line of departure should be recognizable on the terrain and should provide troop safety from friendly nuclear strikes.

(e) Concentration.--The maneuver force of the counterattack attacks as rapidly as possible in a formation designed to reduce the length of time the force is concentrated. The maneuvering force exploits and sustains the shock of the supporting fires.

(2) Enemy Nuclear Weapons.--Effects of the enemy employment of nuclear weapons during the counterattack are considered by the regimental commander. Alternate plans for accomplishing the mission in the face of such contingencies are made.

f. Other Considerations.--When the infantry regiment is assigned a TAOR, some of the foregoing techniques will require modifications, particularly if the enemy possesses equal mobility.

(1) Primary emphasis is assigned to target acquisition agencies operating within the regimental area.

(2) Once the enemy has been located, he is attacked with all available supporting fires.

(3) Elements of the regiment move by the most rapid means available to attack the enemy force. The basic techniques for offensive operations are described in section III of this chapter.

3413. MOBILE DEFENSE

a. General.--The mobile defense envisions the employment of only minimum forces in the forward defense area. Their mission is to warn of impending attacks, block or impede the enemy advance, and canalize him into an area of the defender's choice. The remaining combat units comprise the reserve force. They are employed in offensive action at the time and place of the defender's choosing to destroy the enemy forces. (See fig. 30.)

b. Forward Defense Area.--The forward defense area is the area in which the forward defensive positions are located. The unit responsible for the forward defense area is normally assigned a specific sector of responsibility based on considerations such as the area required by units occupying forward defensive positions to accomplish their mission, the capability of the units to prevent infiltration, and their ability to maintain surveillance over the area. A regiment assigned to the forward defense area normally positions its units in strongpoints.

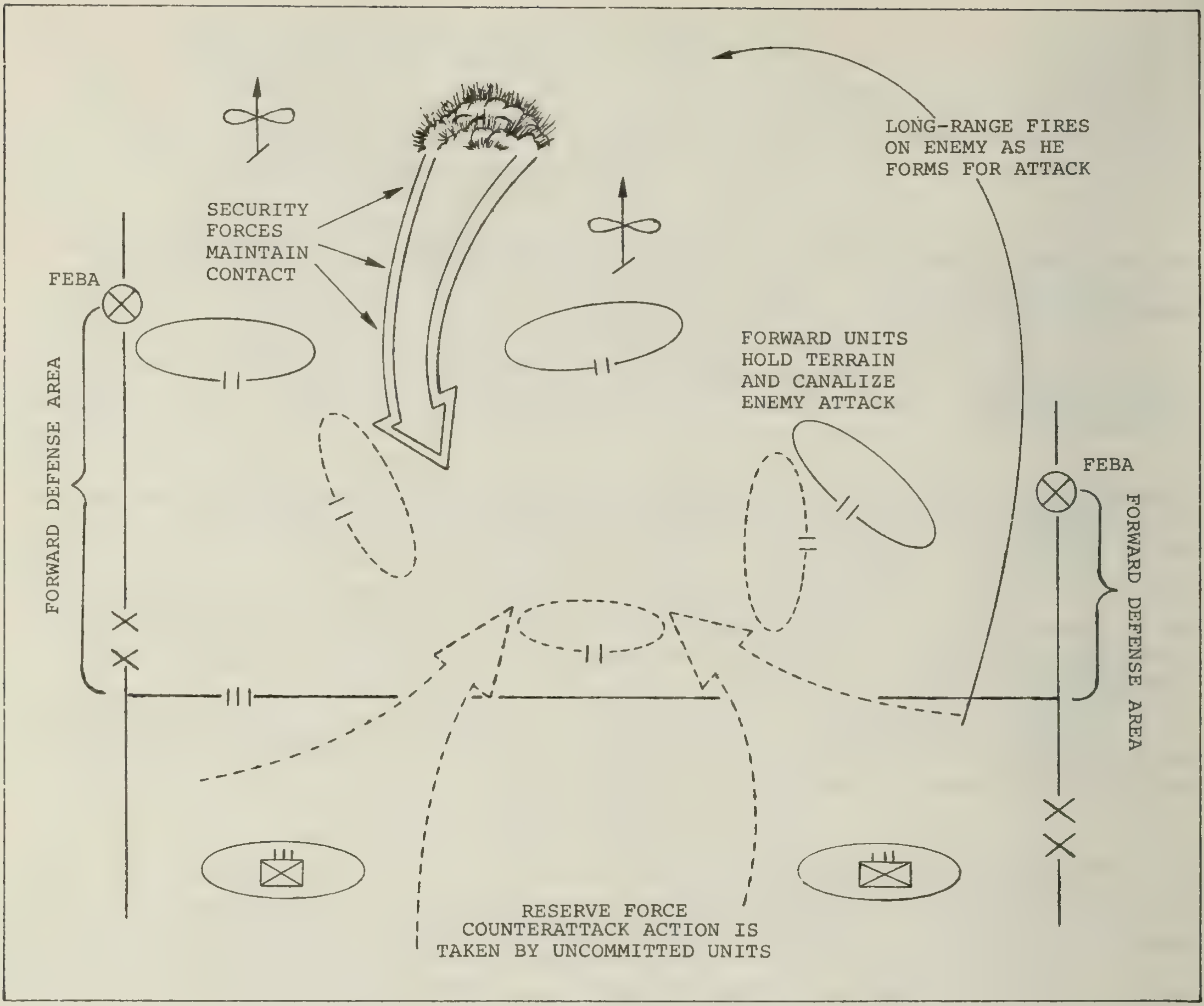

LONG-RANGE FIRES ON ENEMY AS HE FORMS FOR ATTACK
SECURITY FORCES MAINTAIN CONTACT
FEBA
FORWARD DEFENSE AREA
FORWARD UNITS HOLD TERRAIN AND CANALIZE ENEMY ATTACK
FEBA
FORWARD DEFENSE AREA
RESERVE FORCE COUNTERATTACK ACTION IS TAKEN BY UNCOMMITTED UNITS

Figure 30.--Division in the Mobile Defense.

(1) Strongpoints.--A strongpoint is an area organized for all-around defense. The mission of the strongpoint is to slow down, divert, repel, or destroy the advancing enemy. It provides information from which the location of the enemy's main effort, strength, and direction of advance can be determined. It may serve as a pivot of maneuver for offensive action or as a base for security and reconnaissance forces. The reinforced battalion is normally the smallest infantry unit given the mission of holding a strongpoint in a mobile defense. Units smaller than a battalion usually lack the combat power required to canalize the enemy or defend a strongpoint long enough to permit offensive counteraction by the reserve force. Situations may arise, however, where terrain and enemy permit the employment of reinforced rifle companies as strongpoints. Strongpoints employ formations of area defense or one of its variations. Although the positions are primarily oriented to defend the front, strongpoint reserves prepare numerous supplementary positions to meet threats from different directions. Emphasis is placed on all-around defense and

flexibility. The strongpoints may frequently employ a perimeter defense or one of its variations. (See par. 3411.)

(2) Observation Posts.--Observation posts may be located in front of, in the intervals between, and behind the strongpoints. The forward defense area commander prescribes the missions which the observation post system is to perform and the general location of the observation posts.

(a) Observation posts may perform the following tasks:

1 Provide surveillance across the front and furnish early warning of the enemy advance.

2 Delay, deceive, and disorganize the enemy and prevent close observation of the forward defense area to the maximum extent possible by the fires of supporting artillery, mortars, and close support aircraft.

3 Furnish guides and information to assist friendly units passing through their area of surveillance.

(b) Observation posts vary in size according to the existing situation and the mission to be accomplished. Where possible, artillery and mortar forward observers and forward air controllers are located in the observation posts.

(3) Conduct of the Defense in the Forward Defense Area

(a) When the regiment is assigned to the forward defense area, the regimental commander conducts the defense in accordance with the division commander's plan. The plan may require the holding of specific terrain or the withdrawal or relocation of strongpoints to accomplish the mission.

(b) Where the defense of key terrain is vital to the mission, he coordinates the defense of the various strongpoints. He provides for coordination of fires between strongpoints, and for the relocation of supporting weapons, if necessary, to mass fires in support of a threatened strongpoint. He reinforces heavily engaged strongpoints as necessary to prevent their destruction by the enemy.

(c) If the mission requires withdrawal, delaying action, or relocation to successive blocking positions by his units, he coordinates these movements with those of other units.

(d) If the mission requires employment of all or part of the regiment in the reserve force, the regimental commander plans and conducts offensive actions in coordination with the commander of the reserve force.

(4) Employment of Helicopters.--The regiment, when assigned to the forward defense area, may employ helicopters to initially position subordinate units in strongpoints and observation posts. During the conduct of the defense, helicopters may be employed to relocate units in supplementary positions as required. When the withdrawal or relocation of a strongpoint is required by the defense plan, helicopters may be employed to lift the subordinate units involved.

c. Reserve Force

(1) That portion of the defensive sector, in the mobile defense, which lies behind the forward defense area of the division is the reserve area. The designation of a reserve area does not imply area responsibility for the reserve force commander. Consistent with his mission, the reserve force commander may be called upon by the higher commander to provide small mobile security and reconnaissance forces to operate within this area. The reserve force is deployed in dispersed blocking positions in the reserve area or in dispersed assembly areas. Disposition of the reserve force depends on terrain, enemy capabilities (to include air and supporting weapons), availability of various types of transportation to provide mobility and planned manner of employment.

(2) The reserve force should possess a high degree of mobility and combat power. Helicopterborne forces with adequate fire support possess this capability.

(3) The success of the entire defense depends largely on canalizing the enemy into areas favorable to the defender and the subsequent employment of the reserve force to destroy him. Advance planning for employment of the reserve force is essential in order to reduce to a minimum the time required to launch an attack.

(a) The regiment employed in the reserve force is always oriented for employment in the offensive role, even though it may be assigned an additional mission of preparing blocking positions within the reserve force area. The regiment is normally dispersed in battalion blocking positions or assembly areas. Units thus dispersed must retain the capability of rapid movement. Priority of available means of mobility is given to the reserve force.

(b) The regimental commander must be prepared either to execute the assigned mission under the direction of the overall reserve force commander or to command the reserve force if so assigned.

d. Security

(1) Security forces in the mobile defense may include aviation and a covering force furnished by higher headquartrs. Though highly desirable, a general outpost may not always be established by a division since this requirement may substantially reduce the division's capability for accomplishing all aspects of the mobile defense. In such cases, provisions are made for more extensive reconnaissance and surveillance measures.

(2) The regiment may be assigned an additional mission of reconnaissance and security of a portion of the reserve area. Planning for and conducting this mission follows the methods described in paragraph 3408.

e. Employment of Helicopters in Support of the Reserve Force.--When elements of the Marine infantry regiment are located in widely separated areas, plans must provide for pickup of subordinate units from these areas and their concentration at the point of landing and attack. In such cases, the landing plan must be unusually precise and detailed to ensure timely concentration. Fire support plans are coordinated with units occupying forward defense area positions and surface elements of the reserve force if applicable. As in any other attack, available fire support must be sufficient to effectively neutralize selected landing zones and the approaches thereto during the landing. When nuclear fires are available, the considerations regarding time of landing after nuclear burst set forth in section III apply. Plans for a helicopterborne reserve force normally include provisions for linkup with units occupying forward defense positions as well as surface elements of the reserve force.

f. Employment of Tanks in the Mobile Defense.--As in the case of the area defense, tank support can be effectively utilized by the infantry regiment, if called upon to conduct a mobile defense. The inherent tank capabilities of mobility, firepower, and shock effect introduce offensive action which will lead to the destruction of the enemy forces.

(1) Tanks, when employed with security forces, are best suited for employment with the covering force. Logical tank missions would include conducting limited objective tank-infantry attacks, delaying actions, and the delivery of long-range supporting fires.

(2) The defense of strongpoints can be enhanced with the assignment of tank units if resources allow. The risk of tanks becoming engaged and unable to rejoin the reserve must be weighed when tank forces are limited. Missions assigned to tank units supporting the defense of strongpoints is similar to that of armor operating with security elements.

(3) Since the mission of the reserve force is accomplished by the use of offensive action, the majority of tanks supporting the regiment, if not all of them, should be employed as part of this force. Tank employment in this role parallels normal tank-infantry offensive combat.

(4) See FMFM 9-1, Tank Employment/Antimechanized Operations, for detailed information on the employment of tanks in the mobile defense.

3414. IMPACT OF NUCLEAR AND CHEMICAL WEAPONS

a. Nuclear.--The discussion contained in this paragraph deals with the impact of nuclear and chemical weapons in defense. Also see paragraph 3702 for nuclear fire support planning.

(1) Nuclear weapons have as profound an effect in the defense as in the attack. The large radius of effects of nuclear weapons may make compact defensive positions costly since one nuclear weapon may produce heavy casualties. Therefore, the presence of nuclear weapons may dictate a more dispersed type of defense, either an extended area defense or a mobile defense, depending on the mission assigned. These dispersed positions present problems in the surveillance and control of the large intervals between units. However, nuclear weapons can be used to deny large areas to the enemy and cause heavy casualties when he attacks.

(2) Enemy employment of nuclear weapons causes passive defensive measures to assume increased importance. In addition to dispersion, the use of barriers, camouflage, concealment, and construction of dummy positions has value in slowing the enemy and causing him to expend nuclear weapons or use other offensive measures against unoccupied positions. All positions are dug in as deeply as the terrain permits. Underground shelters are constructed whenever possible. All emplacements should provide, as a minimum, overhead cover for protection against thermal effects.

(3) Emphasis in planning is placed on maneuvering the enemy into concentrating, thereby presenting a nuclear target. This may be forward of the defensive position as in the extended area defense or within the position as in the mobile defense. Nuclear countermeasures are utilized before the enemy gets so close to friendly units that they are jeopardized by the weapons.

(4) The presence and use of nuclear weapons greatly increase the need for mobility of reserves. Reserves are prepared to move quickly by any means, including helicopters, to those critical areas which the enemy may attack following a nuclear strike.

b. Chemical.--Chemical munitions may be used effectively in actual organization of the ground and in defensive fires against troop concentrations, assembly areas, materiel, and supplies. Chemical agents in persistent form may be employed effectively to form barriers and to reinforce other obstacles and demolitions. Chemical landmines may be integrated into high explosive (HE) minefields to increase the effectiveness of the field and to hinder breaching activities. Flame devices and emplaced flame weapons are especially effective against assaulting enemy infantry. Smoke may be employed to neutralize enemy observation and to create confusion in formations of enemy infantry and armor.

3415. INFANTRY REGIMENT IN DEFENSE DURING WIDELY DISPERSED OPERATIONS

a. General

(1) The regiment may be required to control an extremely large area containing widely separated critical localities which must be defended in order to accomplish its mission. The entire regimental area may be located a considerable distance from other elements of the division.

(2) The regiment may conduct a helicopterborne attack to seize key terrain or important objectives deep in enemy territory. In this situation, it must be capable of defending itself against attack from any direction until reinforcement is achieved by helicopter, or until linkup is effected with surface forces.

(3) In either situation, the regiment may be assigned a TAOR. The mission may require the regiment to establish and maintain control over the entire TAOR, or to defend specific tactical localities within the TAOR. Depending on the mission, the TAOR assigned the regiment is usually larger than a regiment can physically occupy or observe. Under these conditions, the organization of a perimeter defense is not possible. The regiment must be self-sufficient. Though all the battalions of the regiment may be committed, a separate and distinct reserve should be designated. In the event of enemy penetration of the TAOR the least engaged battalions, or elements thereof, function as the regimental reserve. Dispositions are oriented to defend against attacks from any direction.

(4) The exact size of a TAOR which the regiment can defend can be defined only in relation to a specific mission and situation. The size is normally determined by analyzing the mobility capability of the regiment in relation to the terrain, the mission, the enemy situation, and the availability of fire support means, particularly close air support. The controlling factor is the mobility of the regiment. The regiment must be able to exercise surveillance over the area, to achieve mutual support of separated

elements by movement, and to effect timely concentration for counterattack within the area through the use of the available means of mobility. Therefore, the size of the TAOR which can be defended by the regiment is proportional to its tactical mobility. The regiment can defend a TAOR of maximum size when adequate direct helicopter support is available on a continuing basis. When the regiment relies solely on organic means, the size is limited to that which can be covered by movement on foot.

(5) The nature of the operations discussed above often requires that the regiment be heavily reinforced to accomplish its mission. Reinforcing or supporting elements should include:

(a) Additional means of mobility.

(b) Reconnaissance units.

(c) Increased fire support means, to include nuclear delivery means when the situation warrants.

(d) Combat support and service support units to ensure logistic self-sufficiency.

(e) Aviation for all-weather support.

b. Organization of Defense.--When a regiment defends within a TAOR, it normally disperses its subordinate battalions in battalion defense areas or TAOR's.

(1) If the regiment is to seize and defend a specific terrain objective, then the locations of the battalion defensive positions are oriented toward the defense of that objective. Maximum use of cover and concealment, as well as deception measures, is made to reduce the vulnerability of the regiment.

(2) If, on the other hand, the regiment is ordered to land and establish control within a defense sector with no specific physical objective assigned, the regiment's principal defensive positions are located so that it may best accomplish its assigned task. To avoid detection, the regiment frequently displaces its subordinate unit positions within its TAOR. Deception measures and efficient use of camouflage, cover, and concealment are mandatory.

(3) It is desirable that battalions be so dispersed that mutual support can be achieved through fires of supporting weapons located within each area and through movement by foot march. The degree of separation which can be accepted is influenced by the availability of long-range weapons, close air support, and sufficient mobility to effect mutual support by timely movement. Extensive dispersion increases risk of infiltration or penetration through unoccupied intervals existing between battalions. The regimental commander plans for the employment of security detachments, warning devices, barriers, and aerial, as well as ground, reconnaissance and surveillance measures to guard against this threat. Battalion defense areas are organized generally as discussed in paragraph 3410.

c. Reconnaissance and Surveillance

(1) The regimental commander ensures positive coverage of the TAOR by assigning specific areas of responsibility for ground reconnaissance

and surveillance to subordinate units, and by coordinating aerial observation, photo reconnaissance missions, helicopter reconnaissance activities, and the employment of electronic surveillance devices. He maintains contact with adjacent units and establishes contact with higher echelon reconnaissance elements which may be operating near the regimental TAOR in order to obtain early warning of enemy movement. When a reconnaissance company is attached to the regiment, the regimental commander may retain surveillance responsibility for a portion of the TAOR.

(2) During daylight hours, reconnaissance patrols search areas of likely enemy activity. Preferably, they are lifted from place to place by helicopter. Helicopter reconnaissance is conducted and numerous observation posts are established. Observation type aircraft are kept on station, when available, to detect enemy positions or movement and to direct friendly airstrikes when the enemy has been located. It may be necessary to establish patrol bases up to company size from which numerous foot patrols will operate.

(3) Under conditions of bad weather or reduced visibility, nonvisual means of surveillance are used. The regiment normally occupies strong, integrated battalion sized defensive positions unless movement is necessary to counterattack enemy penetrations or to displace battalion defensive positions. Patrolling is continued but is concentrated around the periphery of the organized battalion positions and in the most likely avenues of approach to the TAOR. Patrol bases may be withdrawn into their parent battalion positions. Ambush patrols and listening posts should be positioned in areas in which enemy activity is likely. Battlefield surveillance radar and listening devices are employed extensively. Observation aircraft may be utilized for night reconnaissance missions. Flares may be used to illuminate suspected areas. Aircraft equipped with moving target indicators may be used to conduct periodic searches of the regimental TAOR.

(4) Remote sensors are suitable for surveillance of the enemy over large areas. The remote sensors can be employed to provide surveillance of likely avenues of approach, enemy assembly areas, helicopter landing zones, and other areas of importance.

d. Fire Support

(1) The regimental commander plans and coordinates fires in the areas between battalions throughout the regimental TAOR. Plans include provisions for mutual support by long-range fires between suitable supporting weapons located in each battalion area and for relocation of supporting weapons, as necessary, to permit placing of defensive fires on any part of the TAOR threatened by enemy action.

(2) When the enemy is located within or approaching the TAOR, fires are called to destroy him. Much of the long-range fire support is furnished by aviation units. Nuclear fires are used when authorized and available.

e. Security Measures.--The regiment normally does not employ a combat outpost within a TAOR. Extensive use, however, is made of other reconnaissance and security forces.

f. Conduct of Operations.--In the conduct of a defense of this type, the operations of the regiment involve a combination of offensive and defensive maneuvers. Aggressive reconnaissance and surveillance units seek out the enemy. Fires are delivered on the enemy when he is located. Subordinate units of the regiment are employed to fix the enemy, counterattack, and destroy him. Offensive sweeps are conducted throughout the TAOR by units of up to battalion size. Helicopters are used extensively for troop movements either for counterattacks or to shift unengaged battalions to support those who are engaged or attacked by the enemy.

g. Other Considerations

(1) Maximum use is made of natural and artifical obstacles to strengthen the regimental position. Extensive use of camouflage, cover, and concealment is essential to avoid enemy targeting operations. Dummy positions and other deceptive measures are undertaken to prevent detection. Care is taken to avoid establishing a regular pattern of reconnaissance, security, and offensive operations.

(2) The regiment must be capable of rapid organization for employment in offensive operations in other localities. It must be capable of rapid disengagement if subordinate units are in contact and rapid movement by any means of transportation.

Section V. RELIEF OPERATIONS

3501. GENERAL

a. When tactical operations continue over a prolonged period, conservation of fighting power, maintenance of effectiveness, and the requirements of the tactical plan may require the periodic relief of committed units. Such reliefs are effected by a relief in place, a passage of lines, or a withdrawal.

b. The regiment may participate in a relief when the entire regiment relieves other regiments or it may direct and control the relief operations of its battalions.

3502. BASIC CONSIDERATIONS

The following considerations are common to the planning and execution of all types of reliefs:

a. Plans.--Preparation of detailed plans for the relief and their close coordination is required between all echelons of the relieving and the relieved units. The incoming unit becomes thoroughly familiar with the existing defensive plans including fire, barrier. counterattack, patrol, and other pertinent plans. Liaison personnel are exchanged to facilitate exchange of information. The unit being relieved should leave liaison personnel with the relieving unit.

b. Transfer of Command.--The time or circumstances under which the relieving unit commander will assume responsibility for discharging the mission of the element being relieved is clearly established.

c. Reconnaissance.--Arrangements are made for a thorough reconnaissance, in daylight if possible, by commanders and staff officers of the relieving unit. Reconnaissance should include, when appropriate, an inspection of existing defensive installations, relief routes, entrucking, detrucking, and turnaround points, weapon positions, and administrative installations.

d. Movement Control.--Arrangements between the relieving and the relieved units are made for the control of units moving into and out of the area. Coordination includes:

(1) Routes to be used and priorities for their use.

(2) Responsibility for traffic control.

(3) Location of entrucking, detrucking, and turnaround points.

(4) Provision for guides.

(5) Common use of transportation.

e. Intelligence.--The unit being relieved transfers to the relieving unit all information and intelligence concerning the enemy and the areas of operations. If additional information is required by the relieving unit (e.g., prior to an attack), the unit relieved or passed through should provide such information.

f. Fire Support.--Supporting artillery and weapons of the unit being passed through fire in support of the unit executing the passage. Fire support elements of the unit making the passage (or relieving the other unit in place) may take positions in rear of the unit being passed through (or relieved in place). In either case, all fires delivered in the zone are controlled through the headquarters of the commander responsible for the zone.

g. Transfer of Responsiblity for Minefields.--A report of transfer is a written report which transfers the responsibility for a minefield from the commander of a unit that is responsible for the field when the unit is relieved, to the relieving unit commander. A report of transfer must be signed by both the relieved and relieving commanders and must include a certificate stating that the relieving unit commander has been shown, on the ground, or otherwise informed of all mines within his zone of responsibility and that he assumes full responsiblity for such mines. The report of transfer is forwarded to the next higher commander having authority over both the relieved and relieving unit commanders. Detailed instruction for the preparation and forwarding of minefield records and reports are contained in FM 20-32, Employment of Land Mines.

3503. RELIEF IN PLACE

a. General.--A relief in place is a combat operation in which, by direction of higher authority, all or part of a unit is replaced in a combat area by the incoming unit. The responsibilities of the replaced elements for the combat mission and the assigned zones of operations are transferred to the incoming unit. The incoming unit continues the operation as ordered. The replaced elements are withdrawn prior to the resumption of operations. The relief in place is executed when the unit being relieved is defending. The relieving unit may continue the defense or prepare for a subsequent attack. The relieved unit is withdrawn or assumes another role in the scheme of maneuver.

b. Planning Procedures

(1) General.--When the regiment conducts a relief in place, the warning order normally specifies as a minimum control measure the time for commencing and completing the relief and the priorities for use of routes involved. The warning order usually directs that the relief be carried out under cover of darkness or other conditions of reduced visibility. Upon receipt of the warning order the regimental commander and staff analyze the mission, issue regimental warning orders, establish liaison, and arrange to visit the unit to be relieved. The relieving regiment usually establishes its command post in the vicinity of the command post of the unit being relieved. Joint conferences are held between the commanders and staffs of the two units concerned to work out the details of the relief.

(2) Details to be Coordinated.--Procedures must be arranged and agreed upon for the accomplishment of the following:

(a) Exchange of Plans and Liaison Personnel.--The incoming unit commanders and staffs are thoroughly briefed until they are familiar with the existing defensive plans to include fire plans, barrier plans, and counterattack plans. To make the most efficient transfer of information concerning plans, dispositions, and area of operation, the unit being relieved assigns liaison personnel to remain with the relieving unit. The number of personnel and the duration of their stay with the relieving unit vary with the situation. They normally remain with each combat and combat support headquarters of the relieving unit at company level and higher. In normal situations, they will remain until the incoming units have become familiar with the situation.

(b) Sequence of Relief.--To maintain the strongest defense during the period to complete the relief, the relief in place is executed by stages, either rear to front or front to rear. In determining the sequence of the relief, both commanders should consider the following:

1 The subsequent mission of the unit that is conducting the relief.

2 The strength and combat efficiency of the unit presently in the forward defense area.

3 The capability of the enemy to detect and react against the relief.

4 The characteristics of the area of operations.

5 The need to vary the pattern of relief.

6 Size and type of elements involved in the relief.

7 The requirement to retain secrecy.

(c) When Command Is to Pass.--The time or circumstances under which the relieving unit commander assumes responsiblity for the area is clearly established. Until command passes, the outgoing unit commander retains responsibility for the area and mission and exercises operational control over all subordinate units of the relieving unit which have completed their portion of the relief. During this period, the incoming units must adjust to and execute the general defense plans of the outgoing unit. Command normally passes to the relieving commander when the units in the forward defense area of the unit being relieved have been relieved and when adequate communication means have been established. When command passes, the incoming commander assumes operational control of all elements of the outgoing unit which have not yet been relieved. Once passage of command has been effected, the new (relieving) regimental commander notifies their common superior of this fact.

(d) Security.--All echelons of the relieving and relieved units take precautionary measures to prevent the enemy learning that a relief is taking place. In addition to conducting the relief during periods of reduced visibility, other security measures include:

1 Every form of normal activity in the area of operations is maintained during the relief. The relieving unit assumes the normal pattern of harassing and interdicting fires, patrols, communication traffic, and movement employed by the outgoing unit.

2 Restrictions on the size of advance parties and reconnaissance parties are enforced. These parties move to the area of operations by infiltration whenever possible.

3 Aerial reconnaissance by members of the relieving unit should be made in conjunction with the normal pattern of aerial observation operations, if possible.

4 Radio nets of the relieving unit are not used in the new area until after the relief is complete.

5 Registration of fires of the relieving unit normally are coordinated by the outgoing unit until command passes.

6 An integrated tactical cover and deception plan is executed by both the relieving and relieved units.

(e) Fire Support

1 The method of relieving fire support units is clearly established. Normally, the artillery of the unit being relieved remains in position until the units in the forward defense area have been relieved. By using this procedure, artillery units which are familiar with the fire support plans and the area of operations are in position to fire during the critical period of the relief of forward units.

2 If sufficient firing positions are available, the relieving artillery may elect not to take over the outgoing artillery's firing positions and may select new positions from which the same fire missions can be accomplished. In this case, the relieving artillery is prepared to take over fire missions before the relieved batteries are withdrawn.

3 When the lack of firing position so dictates, artillery may be relieved in place. In this case, it may be necessary to relieve by platoon or section to avoid congestion.

4 When the relief is to be conducted over a period of more than one night, the relieving artillery normally will move at least one gun per battery forward the first night to secure registration data. In any case, liaison officers and forward observers of the relieving unit join the units being relieved as soon as possible to become familiar with the existing fire plans.

5 Until command passes, registration and all other fires of the incoming artillery units are controlled by the commander of the artillery being relieved.

6 The headquarters ordering the relief may direct that the artillery of the unit being relieved remain in position to support subsequent operations of the relieving unit. In this case, careful coordination of position areas is made in order to reduce vulnerability.

(i) Exchange of Equipment.--The time available for and other circumstances influencing the relief may require that certain weapons and other equipment be exchanged between the relieving and the relieved units. The extent of such exchange is authorized by the headquarters ordering the relief.

(j) Logistic Support.--Pertinent logistic support matters such as the transfer of supplies, use of installations, transfer of prisoners of war, operation of civilian collecting points, displacement of combat service support units, use of transportation, and traffic control is coordinated between the relieving and relieved units.

(3) Concurrent Planning.--The unit executing the relief and the unit being relieved issue operation orders directing the conduct of the relief in accordance with procedures agreed upon at the planning conference. Prior to the issuance of the operation orders, fragmentary orders are disseminated to subordinate units to allow concurrent planning by these units.

c. Conduct of the Relief in Place

(1) From a regimental point of view, two primary factors determine the method to effect a relief in place. These factors are the sequence of the relief and the duration of the relief; i.e., whether the relief is to be conducted in one or more than one night. Within the framework of these factors, the relief in place is a series of relief operations conducted by subordinate units and controlled by the regiment. After detailed regimental planning, execution is decentralized.

(2) Once the relief in place is begun, the regimental staff is primarily concerned with:

(a) Supervising the timing and movement of subordinate units.

(b) Coordinating joint use of transportation between relieving and relieved units.

(c) Supervising traffic control measures.

(d) Preparing for the responsibilities of control after command passes.

(e) Reviewing current information in order to stay abreast of the situation so they can react swiftly to any emergency or required change in the plan for relief.

d. Nuclear Considerations.--During the execution of the relief, the physical presence of two elements in an area where only one normally is positioned inherently increases vulnerability to nuclear attack. Therefore, the planning and conduct of the relief are made with full appreciation of the risks involved. Careful scheduling of the reliefs to be executed by subordinate units is accomplished in order to reduce the troop density in the area of relief to the minimum. If the relief is conducted over an extended period of time, vulnerability to nuclear attack can generally be reduced. However, the possibility of enemy detection and reaction against the relief can be expected to increase. A threat of nuclear attack emphasizes the requirement for secrecy to avoid detection and the necessity for thorough planning to limit the number and duration of profitable nuclear targets. It also points out the need for early and preplanned tactical cover and deception measures.

3504. PASSAGE OF LINES

a. General.--A passage of lines is a relief of a frontline unit by a rear unit which moves forward through an already established line. In a passage of lines, the unit passed through may remain in place or move to the rear.

b. Planning Procedures

(1) General.--The planning procedures involved when a regiment passes through another unit are very similar to those detailed in paragraph 3503b for a relief in place. Upon receipt of a warning order which contains a directive for a passage of lines, the regimental commander and his staff make early contact with the unit which the regiment is to pass through. Arrangements are made to establish a command post in the vicinity of the command post of the unit to be passed through and for the initiation of planning conferences to work out the details of the operation.

(2) Details to be Coordinated.--During the planning conferences, the following details are coordinated by the commanders of the units involved:

(a) Exchange of intelligence.

(b) Exchange of tactical plans to include communication plans.

(c) Arrangements for reconnaissance by elements of the units passing through.

(d) Measures to be taken to provide security during the passage.

(e) Selection of areas of passage and provision for guides.

(f) Priorities for use of routes and provisions for movement control.

(g) The time or circumstances when responsibility for the area of operations will be transferred to the unit passing through.

(h) Extent of fire support and other combat support to be provided by the unit being passed through.

(i) Extent of logistic support to be provided by the unit being passed through.

(j) Communication support to be provided by the unit being passed through.

(3) Selection of Areas of Passage.--When possible, the areas selected for the actual passage of lines should be the unoccupied areas between elements of the unit in position or on its flanks. This procedure reduces the vulnerability which results when one unit passes directly through the occupied positions of another unit. Vulnerability also is reduced when the subordinate units of the regiment making the passage move directly to the areas of passage and on into the attack without occupying forward assembly areas.

(4) Priorities for the Use of Routes.--The unit passing through must have priority for use of routes to and within the area of the unit

being passed through. Route priority should be established by the headquarters directing the passage of lines. Traffic control in the area of the unit being passed through is the responsibility of that unit until the responsibility for the zone passes to the passing unit. The passing unit may augment the traffic control capability of the unit in position during the time of passage.

(5) Passage of Command.--The time or circumstance when responsibility for the zone of action is transferred to the commander of the unit executing the passage of lines is mutually agreed upon by the two commanders concerned unless the time has been specified by a higher commander. The commander of the unit making the passage of lines normally assumes responsibility for the zone of action at or prior to the time of attack. The responsibility for the zone may shift at the time of the firing of the preparatory fires, or earlier, at the direction of the headquarters ordering the passage. This transfer of responsibility requires that the commander making the passage assume operational control of those elements of the unit being passed through that remain in contact at the time of transfer of command responsibility.

(6) Tactical Support

(a) The unit in contact provides all possible aid to the unit passing through; e.g., the gapping of minefields, providing guides, controlling fire support, and the coordinating of other combat support within its capabilities.

(b) Normally, because of problems of control, only the indirect fire means of the unit in contact will be used to support the passing unit. After responsibility for the zone of action is transferred to the passing unit, the artillery commander of the passing unit coordinates the fires of the artillery of the unit which has been passed through.

(c) It is desirable to employ the artillery of the unit making the passage to support the attack. However, if the attack is receiving nuclear support, it may not be necessary to increase troop density by deploying the artillery of the attacking unit in the forward area. In this case, the artillery of the unit in contact supports the attack initially, and the artillery of the attacking unit is placed in rear positions ready to move to forward firing positions to support the continuation of the attack.

(7) Logistic Support.--The unit in contact provides assistance to the attacking regiment for logistic support as follows:

(a) Evacuation of casualties and prisoners of war.

(b) Control of civilians.

(c) Use of areas and facilities; e.g., water points.

(d) Route priority and traffic control.

c. Conduct of the Passage of Lines

(1) Elements of the attacking regiment preferably move during periods of reduced visibility from rearward positions to attack at the

scheduled time. Careful march calculations are made to ensure that the units attack at the correct time without the requirement for use of a forward assembly area. This procedure reduces to the minimum the time in which elements of two units are concentrated in the forward area.

(2) If the attack subsequent to the passage of lines is preceded by a nuclear preparation, it may be necessary, because of different degrees of protection available in the attacking regiment and the unit being passed through, to prescribe nuclear safety lines. The timing of the movement of the attacking elements from the rear must then provide for these units to reach the nuclear safety line, take the prescribed safety precautions, and then move across the line of departure at the specified time after the nuclear preparation.

(3) In some situations, it may be desirable to displace the reserves of the unit in contact to rear assembly areas just prior to the beginning of the passage of lines. If this procedure is used, it is normally prescribed by the headquarters ordering the passage of lines.

3505. CONSIDERATIONS AFFECTING THE CHOICE OF RELIEFS PRIOR TO ATTACK

a. General.--Situations frequently will arise within the regiment which will require that a unit in contact be relieved prior to the initiation of an attack. This can be accomplished by a relief in place prior to the attack or a passage of lines. The following paragraphs discuss the considerations affecting the choice of methods of relief:

b. Relief in Place.--When sufficient time is available, the relief in place prior to an attack should be employed in those situations where:

(1) The unit being relieved is required to move to another area before or just after the attack is launched.

(2) The capability of the enemy is such that the troop density involved in a passage of lines constitutes an excessive risk.

(3) The attacker requires more detailed familiarity with the terrain and the enemy situation.

c. Passage of Lines.--The passage of lines is preferred prior to the attack when:

(1) There is insufficient time to conduct a relief in place.

(2) More flexibility is desired in the selection of the formation for the attack.

(3) The fire support of two units is desired in a particular area.

(4) A major change in the direction of attack is planned.

(5) It is desired to maintain continuous offensive pressure against the enemy.

(6) Speed can be gained.

Section VI. RETROGRADE OPERATIONS

3601. GENERAL

a. Retrograde movements are any movements of a command to the rear or away from the enemy. It may be forced by the enemy or may be made voluntarily. The movement may be classified as withdrawal, delaying action, or retirement. The infantry regiment in contact with the enemy may be required to effect a rapid disengagement and to conduct a combination of these types of actions simultaneously or subsequently as one form develops into another. For example, planned employment of friendly nuclear weapons may require a temporary withdrawal to safe areas by friendly forces, or hostile nuclear strikes may require a unit to move away from the effects areas in order to reorganize and to avoid contaminated areas. In addition, units in the forward defense area of a mobile defense may conduct delaying actions in order to maneuver the enemy forces into an area of the defender's choice.

b. When the planned scheme of maneuver in an amphibious operation commits all units to action, the least engaged units may execute the missions of the force reserve. This will require rapid disengagement and assembly of forces for employment elsewhere in the objective area.

c. Helicopters provide flexibility in the conduct of retrograde movements and enhance speed of execution. Troop fatigue is reduced, and the speed attained allows more time for preparing subsequent delaying or defensive positions. When helicopter availability is limited, employment may be restricted to evacuation, liaison, reconnaissance, and communication missions. Maximum use is made of available helicopters for successive relocation of subordinate units to new positions or assembly areas.

3602. WITHDRAWAL ACTION

a. General

(1) A withdrawal action is an operation in which all or part of a deployed force disengages from the enemy. Contact is maintained with the enemy to provide security and deception and to prevent a rapid enemy advance. The withdrawal may be facilitated by the conduct of aggressive, limited objective attacks, or it may involve fighting to the rear.

(2) The most desirable type withdrawal is one accomplished in secrecy to prevent the enemy from realizing friendly intention until it is too late for him to react. When secrecy cannot be maintained, contact is broken by fighting the enemy until freedom of action is gained.

(3) There are two specific types or techniques of withdrawal--the voluntary and the involuntary. Voluntary withdrawal connotes a withdrawal without serious enemy interference, conducted during periods of reduced visibility, either natural or artificial. An involuntary withdrawal is conducted when direct enemy pressure is being applied to the force executing the withdrawal, and it is conducted at a time and place not of the choosing of the commander.

(a) A voluntary withdrawal is the preferred method as it is conducted at the time and choosing of the commander, allowing more freedom of maneuver and generally reducing the number of casualties from enemy action. Because the voluntary withdrawal is executed during periods of reduced visibility, it facilitates deceptive measures and reduces the effectiveness of enemy fires and observation.

(b) An involuntary withdrawal under direct enemy pressure is avoided, if possible. Nevertheless, the regimental commander may decide on an involuntary withdrawal if the expected losses are less than those he might experience if the withdrawal is postponed.

(4) Either type of withdrawal requires complete plans within the time available.

b. Voluntary Withdrawal

(1) The regiment leaves a part of its forces in position to deceive the enemy and protect the main body during the withdrawal. This force is called detachments left in contact.

(a) These detachments vary in size but usually consist of one-third of the forward battalions and one-half of the supporting arms.

(b) When two or more battalions are involved, they are commanded by the regimental executive officer. The old command post is used to facilitate control and to create deception.

(c) Detachments left in contact simulate normal radio traffic and continue patrolling. They cover the withdrawal of the main body and withdraw on order. Withdrawal of the detachments in contact is made simultaneously, using rapid means of movement and the same routes and assembly areas as the main body.

(2) To preserve maximum secrecy, the withdrawal should commence as soon as darkness permits.

(a) Administrative elements are usually moved back first. These elements may be moved by infiltration during daylight if secrecy will not be compromised.

(b) The reserve withdraws prior to the forward battalions unless the regimental commander anticipates enemy interference with the withdrawal. In this latter instance, the reserve may remain in its position until the main body passes through to the rear.

(c) The main elements of the forward battalions withdraw simultaneously over designated routes to unit assembly areas. As the main body forms into march columns, the withdrawal is considered to be complete, and further movement to the rear is conducted as a retirement. Upon withdrawal, the detachments left in contact move tactically to the rear under the security provided by the covering force. If no covering force has been provided, the withdrawal of the detachments left is conducted as a series of delaying actions until it rejoins the parent unit.

(d) Artillery and mortars remain in position to support the initial withdrawal and then precede the main body except for those weapons remaining with the detachments left in contact.

(e) Movements are timed to avoid needless or excessive delays in assembly areas. Once the withdrawal begins, it should be conducted as a smooth, continuous action.

(3) Control measures which may be used must include, but are not limited to, the following:

(a) Organization for combat and time phasing of detachments and support.

(b) New location to be occupied and disposition of units in that location.

(c) Phase lines and routes of withdrawal.

(d) Time and sequence of withdrawal.

(4) The success of a night withdrawal is based upon deception. If secrecy of movement is lost, the techniques for a day withdrawal are used. Therefore, when developing the night withdrawal plan, contingency plans should be made for executing a day-type withdrawal.

c. Withdrawal Under Enemy Pressure

(1) When a withdrawal under enemy pressure is required, elements fight their way to the rear using delay tactics on successive positions.

(2) In executing the withdrawal under enemy pressure, all units initiate the action simultaneously in a given sector, in an attempt to disengage from the enemy. The success of this maneuver depends on local air superiority and the effective employment of security and/or covering forces.

(a) In this withdrawal, the use of a covering force is highly desirable. Normally, the covering force will be provided from the reserve of a higher echelon; i.e., the division reserve, but a commander at any echelon may designate his reserve, or a portion of his reserve, as a covering force to assist the main body in breaking contact with the enemy more rapidly.

(b) The mission of the covering force, regardless of origin, is to assist in the disengagement of the forward committed battalions by the delivery of fire or by limited offensive action.

(c) The covering force or elements of the covering force may be required to counterattack to disengage a forward committed element which has become engaged in close combat. In this case, a terrain objective is not normally assigned, as the counterattacking force attacks through the enemy and is then itself withdrawn.

(d) The covering force normally occupies the next suitable defensive position to the rear from which it may deliver fires to assist forward committed elements, or to protect their withdrawal after successfully breaking contact. Subsequent to this action, continued movement to the rear is conducted as a series of delaying actions.

(3) The covering force for each echelon occupies the next suitable terrain to the rear from which it can deliver fires to assist the withdrawal.

(4) Supporting weapons withdraw by echelon to ensure continuous fire support throughout the action.

d. Withdrawals in Dispersed Warfare

(1) When the regiment is defending a large defense area, a tactical area of responsibility, or when it is employed in the forward defensive area of a mobile defense, withdrawals normally take the form of separate battalion withdrawals coordinated and supported as necessary by the regimental commander. This condition will still prevail even though the entire regiment is withdrawn from a defense area. Within the regimental defense area or TAOR, frequent withdrawals of one or more of the subordinate battalions may be necessary to permit employment of the battalions elsewhere or to prevent their destruction by enemy attack.

(2) An individual battalion will withdraw protected only by its organic security forces whenever possible. If necessary, the regimental commander employs other elements of the regiment as a covering force to protect the withdrawing battalion. When a battalion is unable to free itself, the regimental commander employs other unengaged elements of the regiment in counterattack to free the unit so that it can be withdrawn.

(3) When the regimental commander provides a covering force, or employs a counterattack to support the withdrawal, or when two or more battalions are withdrawn simultaneously or in conjunction with each other, the regimental commander controls the movements of all units involved. His orders prescribe the time of the withdrawals, zones of action or route of withdrawal, phase lines, and such other measures as may be necessary to control the movement. Orders provide for rapid dispersion of units at the completion of the operation.

(4) When only one battalion of the regiment is involved in the withdrawal, the regimental commander's order will usually be limited to an authorization for the withdrawal, designation of the new defensive area or assembly area to which the unit is to withdraw, and coordination of long-range supporting fires in support of the withdrawing unit. Other control measures such as time of withdrawal, route of withdrawal, and phase lines are included only when it is necessary to coordinate the withdrawal with other regimental operations, or when the unit is withdrawn into or through another battalion defense area. Freedom of action is afforded the engaged battalion commander.

e. Employment of Helicopters in Withdrawal Action

(1) Withdrawals Without Enemy Pressure.--The regiment employs helicopters in withdrawals when the requirement for secrecy is negated. Withdrawal by helicopter of the detachments left in contact depends on precise timing, terrain which provides covered helicopter approaches, and the capability of fire support means to neutralize enemy ground fires during pickup.

(2) Withdrawals Under Enemy Pressure.--The helicopter can contribute effectively to make the day withdrawal faster and less hazardous when the situation permits. In some cases, helicopters may be limited in employment to the movement of troops behind the units in contact. Employment of helicopters expedites a withdrawal, minimizes the capability of continuous pursuit by the enemy ground forces, and reduces troop fatigue.

The helicopter's capabilities permit troop units to avoid difficult terrain which may prove invaluable in withdrawing units from isolated locations or across major terrain obstacles such as unfordable rivers or impassable swamps. When forward units are heavily engaged, the regiment may employ its reserve in a helicopterborne counterattack on the enemy flank or rear to free engaged units. When helicopter support is limited, helicopters are employed to lift subordinate elements successively beyond range of fire from enemy ground forces or to new positions to the rear.

f. Regiment as a Covering Force

(1) The regiment, acting as the division reserve, may be given the mission to act as or to provide a covering force for the forward committed regiments.

(2) When designated as a covering force, the regiment will organize its positions generally similar to the organization of delaying positions (see par. 3603d), and will accomplish its mission by:

(a) Employing long-range fires to assist forward committed elements to break contact.

(b) Delaying the enemy's advance by any means that will cause the enemy to execute time-consuming tactical deployments and slow his advance.

(c) Counterattacking if the situation warrants.

(d) Covering its own withdrawal, with its reserve, and the fires of organic and supporting weapons.

(3) The regiment or elements of the regiment acting as a covering force may be required to accomplish any of the following tasks:

(a) Counter attempted enemy flanking maneuvers on either flank of the withdrawing force.

(b) Block or reduce enemy penetrations.

(c) Counterattack to extricate heavily engaged units.

3603. DELAYING ACTION

a. General.--A delaying action is a movement in which space is traded for time and maximum punishment is inflicted on the enemy without becoming decisively engaged in combat.

(1) Delay may be accomplished on either successive or alternate positions. Continuous delay is inherent in both types of delay.

(a) The delay on successive positions may be used when a relatively wide frontage is assigned.

(b) The delay on alternate positions can only be used when the regiment can accomplish its mission and can occupy two positions simultaneously. This normally will prevail when the frontage assigned is relatively narrow.

(c) The above techniques may be used in combination.

(2) The echelons of a delaying position are similar to those used in the defense. They may consist of a security area, a forward defense area, and a regimental reserve area. When a wide zone is assigned to the regiment, a COP is not normally feasible, in which case, emphasis is placed on local security.

(3) Planning a delay is highly centralized; executing a delay is decentralized to the lowest level at which specific missions are assigned. Movement of delaying forces is coordinated to a degree essential to ensure preservation of security and maintenance of command integrity. Commanders at lower echelons are frequently given authority to execute offensive maneuver against enemy forces provided such action does not endanger accomplishment of the regimental mission.

b. Planning the Delay

(1) A directive to initiate a delaying action may be broad in scope and provide that enemy forces be retained beyond a designated line for a specified period. In this case, the regimental commander establishes an initial and other delaying positions and sufficient flank boundaries to ensure effective control of subordinate elements. The order for the delaying action which the regiment receives from a higher headquarters will usually specify boundaries, phase lines, the time schedule for the delay, the initial delaying position (IDP), and the line along which the delay will terminate. It may also include interim delaying positions.

(2) The regimental commander evaluates the zone in which the delaying action is to be conducted in relation to trafficability, obstacles, key terrain, road networks and routes of withdrawal, defensibility, and the width of the area.

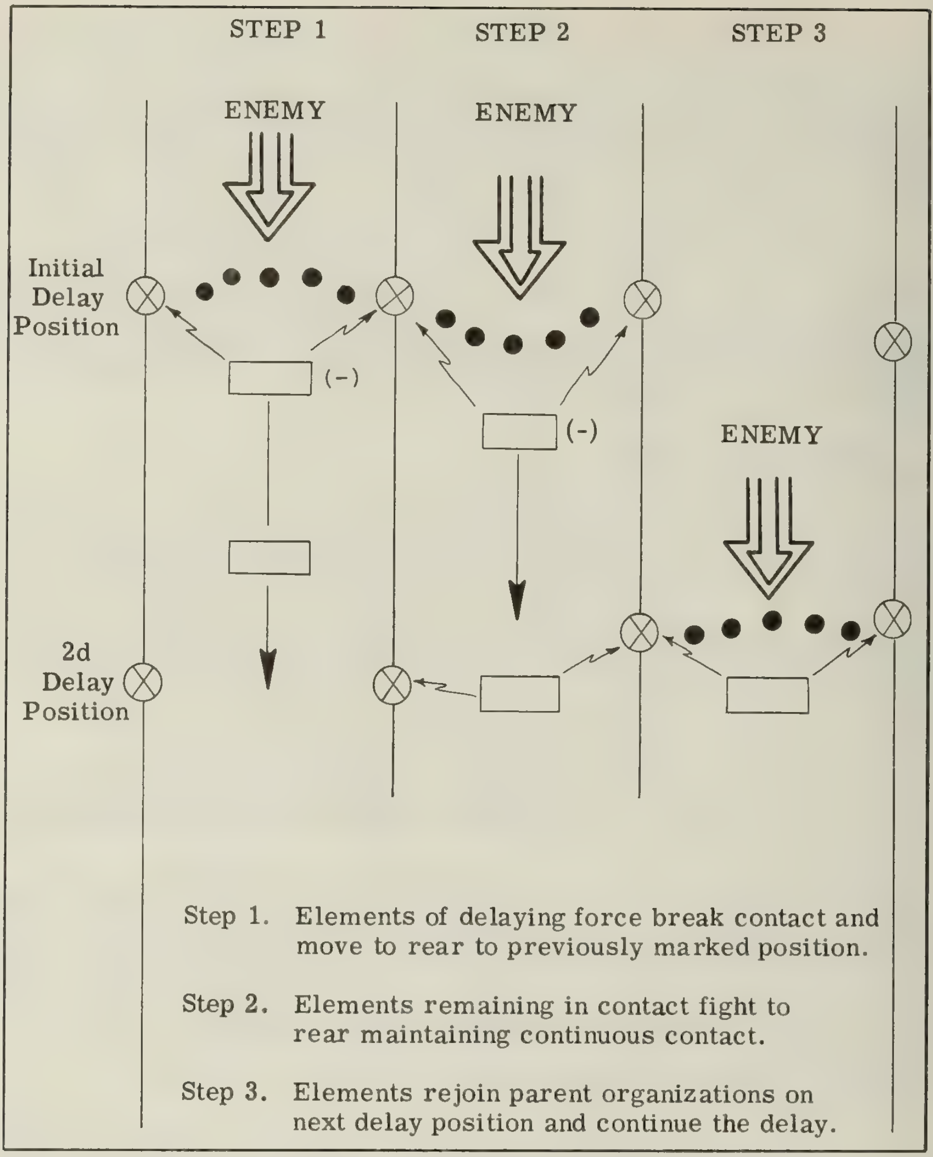
(3) If the width and other characteristics of the zone on delaying positions preclude an even distribution of delay forces, the regimental commander should assign priority to the better approaches and provide for surveillance (in conjunction with mobile forces) on others. In wide zones, consideration should be given to the use of forces in conjunction with natural and artificial obstacles in developing delaying positions.

c. Delay on Successive Positions

(1) Delay on successive positions is the type of delaying action most frequently conducted by the regiment. When employing this type of delaying action, the major portion of the regiment is continuously in the line. Figure 31 is a schematic of a regiment delaying on successive positions.

(2) The IDP is organized and occupied by the major elements of each committed battalion. In some cases, the IDP is occupied prior to the establishment of contact with the advancing enemy. In such cases, a regimental covering force or security elements from each committed unit are sent forward to establish contact and to delay the enemy advance toward the initial position.

(3) The regiment may retain a small reserve which should be as mobile as possible. This reserve may be ordered to provide security forces



Step 1. Elements of delaying force break contact and move to rear to previously marked position.

Step 2. Elements remaining in contact fight to rear maintaining continuous contact.

Step 3. Elements rejoin parent organizations on next delay position and continue the delay.

Figure 31.--Delay on Successive Positions.

forward of the delaying position, counterattack, protect a threatened flank, secure vital rear areas, prepare successive delaying positions, conduct spoiling attacks to assist in disengaging forces, or provide fire to a withdrawing unit. The reserve frequently will be employed to assist a decisively engaged unit to disengage by executing a counterattack.

d. Delay on Alternate Positions

(1) When operating on a narrow front, the regiment may elect to delay on alternate positions. Employing this technique, the regiment is

organized into two elements. The first element occupies the IDP and engages the enemy. The second element occupies and improves the second delaying position.

(2) Those units occupying the IDP delay the enemy by employing the continuous delay technique. They delay on the IDP and between it and the second delaying position. When the units arrive at the second delaying position, they withdraw through or around the units that prepared and are occupying that position.

(3) After withdrawing through the second delaying position, the units proceed to the third delaying position and commence the preparation and occupation of that position. Responsibility for delay of the enemy is assumed by the units on the second delaying position when the first element has withdrawn through their position.

(4) The delay procedure is then repeated, with each element being alternately in contact and responsible for causing the required delay. When not in contact, each element is responsible for improving and occupying rearward positions and for providing covering fire for the withdrawal of the element that is in contact.

(5) Regiment-level reserves normally are not retained if this type of delaying action is being conducted. The uncommitted elements occupying alternate positions will be committed as reserves if the need arises. Figure 32 is a schematic of a force delaying on alternate positions.

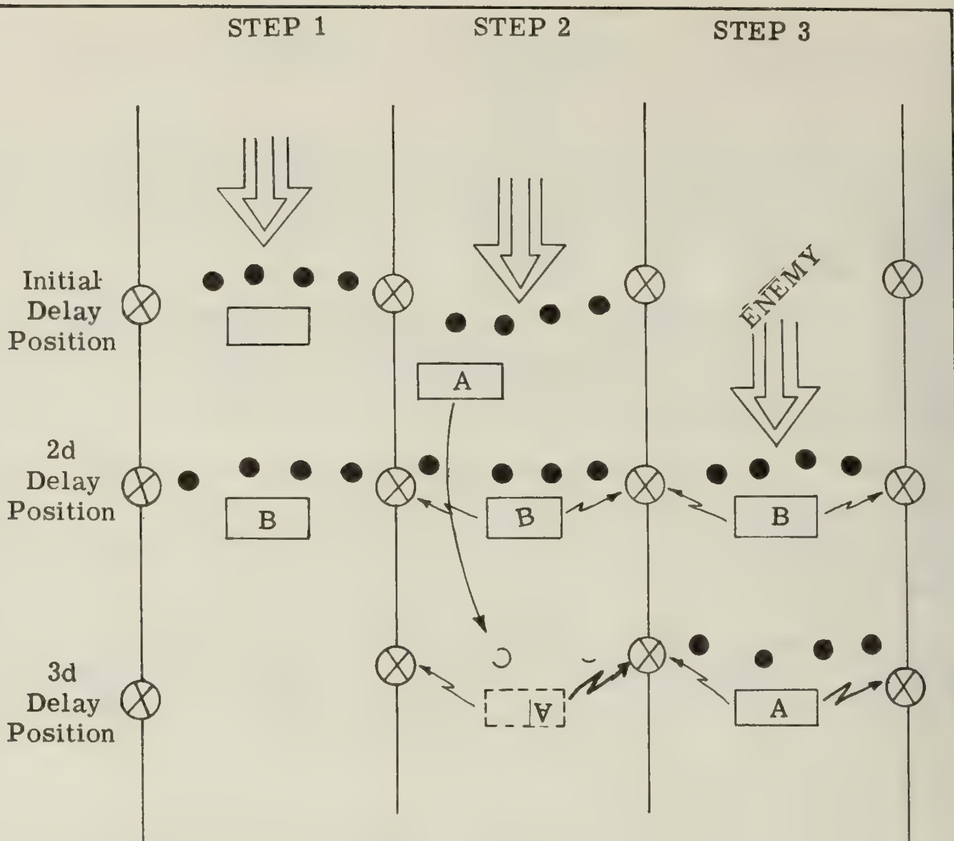
e. Conduct of the Delay

(1) The regimental commander strives to establish and maintain continuous contact with the enemy. Once contact has been established, all remunerative targets presented within range of fire delivery means are subjected to fires. Thorough reconnaissance forward of delaying forces is employed as far as is consistent with the mission and security.

(2) The position is retained in the same manner as in a defensive operation, but forces normally avoid decisive combat. If the delaying element is forced to give ground, the reserve of the maneuver element of which it is a part may initiate a limited-objective attack to relieve the pressure. A delaying position is not abandoned solely on the basis of a penetration unless it is of such magnitude as to endanger the entire position.

(3) At a preselected time or when the position becomes untenable, the regimental commander orders a withdrawal. If the position is tenable at the prescribed time for withdrawal and further delay will contribute to the intent of the operation, the regimental commander may inform higher command and retain his position.

(4) As early as practicable, the regimental commander should effect liaison with elements to his rear and begin planning for withdrawing through the cover provided. Every effort will be made to ensure that adequate gaps through the covering positions are provided to prevent massing of forces when the passage is executed.



Step 1. Elements of the regiment organize the initial and second delay positions.

Step 2. Elements on the initial delay position delay back through the second position to the third delay position.

Step 3. Elements on the second position pick up the delay. The third delay position is occupied.

Figure 32.--Delay on Alternate Positions.

3604. RETIREMENT

a. A retirement is an orderly withdrawal of troops according to their own plan and without pressure by the enemy.

b. A retirement may be made following a withdrawal action or when no contact with the enemy has been made. Following a withdrawal action the movement becomes a retirement after the main forces have broken contact with the enemy and freedom of action is regained.

c. An infantry regiment may execute a retirement as a part of a larger force or independently. If on an independent mission, it retires in compliance with specific instructions or after completing its mission. The regiment may require one or more of its subordinate battalions to execute a retirement if required by the tactical situation.

Section VII. FIRE SUPPORT PLANNING AND COORDINATION

3701. FIRE SUPPORT PLANNING

a. General.--Fire support planning and coordination for land combat is similar in most respects to that associated with amphibious operations except for changes in environment.

b. Plan of Supporting Fires.--(See subpar. 2207d.)

c. Fire Support Planning Process.--(See subpars. 2402a and 2402b.)

d. Sequence of Development of Fire Plans: Offense

(1) The impetus of fire planning is from front to rear, but the regiment need not wait for the plans of subordinate battalions before commencing. Fire support planning is continuous and concurrent at all echelons within the regiment. Except in unusual areas, time is at a premium. The designation (by SOP or otherwise) of areas of primary fire planning responsibility will enable subordinate echelons to make maximum use of available time.

(a) The lateral limits of areas of primary fire planning responsibility are usually established by unit boundaries. Fires should be planned regardless of unit boundaries; coordination at a higher echelon will reduce duplications.

(b) The depth of areas of primary fire planning responsibility may be established by boundaries, by objectives, by phase lines, or other control measures. In order to avoid omission of important targets, areas should overlap in depth as well as width.

(2) The infantry company formulates its fire plan based upon its mission and scheme of maneuver. Fires are planned on known and suspected enemy positions and for protection after the seizure of each successive objective. This plan, which is in the form of a list of targets, is sent to the infantry battalion where it is integrated and coordinated with the plans submitted by the other companies, and with the plan which the battalion has prepared for its area of primary fire planning responsibility. Upon resolution of duplications and subsequent approval by the battalion commander, the battalion plan (including those of the companies) is transmitted by the appropriate fire support representative to the fire support agency represented.

(3) The battalion fire plans (less those of the companies) are transmitted to the regiment where they are consolidated and coordinated with each other and with the plan which the regiment has prepared for its area of primary fire planning responsibility. Upon approval by the regimental commander, the regiment plan (including those submitted by battalions) is transmitted by the appropriate fire support representative to the fire support agency represented.

(4) The regimental fire plan (less those of the battalions) is transmitted to division. When changes are required in the regimental fire plan, division notifies the regiment which in turn notifies the appropriate fire support agency.

(5) By the process outlined above, it should be apparent that planning, consolidation, and coordination are conducted concurrently at every echelon. As a general rule, in the case of conflicting requirements between higher and lower echelons, the requirement of the lower echelon should take precedence.

e. Sequence of Development of Fire Plans: Defense

(1) Defensive fire support plans are normally more complete and detailed than offensive fire support plans. There is more time available for their preparation, and they are based upon terrain and probable developments rather than on known and suspected enemy dispositions. The planning sequence is the same as for offensive fire planning. However, the nature of the defensive situation and normally the time available for planning will permit the successive consolidation, review, and expansion of all subordinate plans at each succeeding higher echelon. Thus, the complete fire plan is submitted to and reviewed by division. A major difference between offensive and defensive fire plans is that a portion of the offensive fire plan is prearranged as to both location and time, whereas the defensive fires are prearranged as to location and are fired at the time they are required (on-call fires).

(2) The regimental commander's preliminary plan of supporting fires is developed and used as a guide by the regimental FSCC and the battalion commanders. The plan of supporting fires may include long-range fires to inflict casualties and disorganize the enemy, fires to support the combat outpost, fires on possible enemy assembly areas and approaches, final protective fires to break up the enemy attack, and fires to support counterattacks. Except for long-range fires, the specific locations of these fires are usually proposed by the infantry battalion commander. The plan also includes necessary details for coordinating the fires of artillery, air, and naval gunfire.

(3) The plans of supporting fires for the infantry battalions include fires desired by each infantry battalion commander, approved recommendations of staff officers and supporting arms representatives, and approved requests of the rifle company commanders and their artillery forward observers. After completion, these plans are forwarded to the regimental FSCC.

(4) The completed regimental plan of supporting fires is sent to the division FSCC for further additions, coordination, consolidation, and final approval by the division commander.

(5) In situations involving wide separation between infantry units and the attachment of artillery to these units, the fire planning process may vary somewhat. The plan of supporting fires is based on the same considerations previously discussed; however, because of distances involved and the time required to complete the plan prior to the time of firing, coordination of this plan at the next higher echelon (even at regimental and/or division levels) may not be practicable in all cases.

3702. PLANNING CONSIDERATIONS FOR NUCLEAR FIRES

The regimental commander may request nuclear fires to support his regiment when their use has been authorized. Under certain circumstances, he may be delegated authority to employ nuclear weapons. Regardless of the echelon of control, the regimental commander bases his planning for the use of nuclear fires on the following considerations:

a. The nuclear fires form the basis of the regimental plan of supporting fires. Nonnuclear fires of organic, attached, and supporting weapons are planned to supplement the nuclear fires and are placed on areas which cannot be covered by the effects of the nuclear weapons.

b. The planned use of nuclear fires must be carefully coordinated with the scheme of maneuver or plan of defense of the regiment. They may be the basis on which the scheme of maneuver or plan of defense is developed. Provision must be made for positioning the assault infantry battalions in order to rapidly exploit the effects of nuclear fires. Helicopters or other means of mobility may be used to rapidly exploit these fires. The same considerations apply when the regiment is developing counterattack plans. Care must be exercised to ensure that the effects of planned nuclear fires do not interfere with the regimental scheme of maneuver or plan of defense.

c. Nuclear weapons may be preplanned, scheduled, or on-call, or they may be employed on targets of opportunity.

(1) When the regiment's scheme of maneuver requires delivery of nuclear fires at a specific time, they are preplanned and scheduled for delivery at that time. Preplanned nuclear fires are specified in the nuclear fire support annex.

(2) The regiment may also plan or request nuclear fires to be delivered on-call. The necessary data is preplanned and listed in the nuclear fire support annex. As many on-call targets as necessary to successfully support operations of the regiment are prearranged. To the degree possible, prearranged data should provide for the use of all types of delivery means. This will permit delivery of on-call fires with a minimum loss of time.

(3) Data is also computed for areas in which targets of opportunity may develop. As many on-call targets are planned and data computed as can be reasonably predicted and/or time for computation allows.

d. The nuclear fire support plan which the regimental commander adopts should be the result of the combined and coordinated action of the entire regimental staff with the primary contributions emanating from the regimental S-3; regimental nuclear, biological, and chemical weapons employment officer; and the regimental fire support coordinator. The completed nuclear fire support plan will be based primarily on the following factors:

(1) The scheme of maneuver.

(2) The number, type, and size of weapons available.

(3) The delivery means available.

(4) Desired effects.

(5) Troop safety.

3703. COORDINATION

Coordination of the three major supporting arms--artillery, air, and naval gunfire--is given particular attention because of their parallel missions their occasional need for common use of airspace, and other similar characteristics. For this reason, the representatives of these arms and their means of communication normally are located together in the FSCC of the regiment. Here they perform their duties in consonance according to established principles and techniques of fire support coordination as set forth in FMFM 7-1, Fire Support Coordination.

3704. OBTAINING FIRE SUPPORT DURING THE CONDUCT OF OPERATIONS

a. Artillery.--Artillery fires on targets of opportunity are called and adjusted by artillery forward observer teams operating directly with the assault rifle companies. In addition to fires requested by forward observer teams, missions may be initiated by air observers or by the artillery liaison officers within the FSCC of the infantry regiment.

b. Air.--Requests for immediate air support are transmitted by the infantry battalion air liaison officers or forward air controllers over the tactical air request (TAR) net to the direct air support center (DASC) or other air control center. Monitoring officers at each echelon indicate approval of requests from subordinate units by remaining silent. Air support missions may be initiated at any echelon of command within the division.

c. Naval Gunfire.--Requests for delivery of fires by assigned naval gunfire ships are initiated by naval gunfire liaison officers or spotters in the case of general support missions and by shore fire control parties operating with the infantry battalions in the case of direct support missions. The procedures for initiating and monitoring mission requests correspond to those described above for air support; i.e., silence of senior monitoring agencies indicates approval of missions initiated by subordinate echelons.

Section VIII. DEFENSE OF A RIVERLINE

3801. CONDUCT

a. Wide, unfordable rivers impose restrictions on movement and maneuver. They constitute obstacles to the attacker and form natural lines of resistance for the defender. An attack across an unfordable river requires tactical and technical preparations proportionate to the size of the river and the relative strength of opposing forces. In the defense of a riverline, special attention is given to the nature of the river being defended, terrain contiguous to the river, and capabilities of the enemy to cross the river. The defense, regardless of type, is organized on terrain which controls the river and/or approaches from the river and makes it possible to stall the enemy's attack astride the river and to destroy him by fire and maneuver. When defending a riverline, the commander should expect the attacker to move rapidly on a broad front and, without pause, to attempt to cross at multiple sites using amphibious vehicles, expedient crossing means, and helicopters. A riverline may be defended employing one of two methods:

(1) Defending the riverline employing forces on the near bank.

(2) Defending the riverline employing forces on the first suitable terrain away from the river.

b. The FEBA prescribed by the higher commander may indicate which method is to be employed. If the general trace of the FEBA provides sufficient latitude, the commander selects the method of defending the riverline based on the following tactical considerations:

(1) These tactical conditions favor a defense on the near bank:

(a) The river is an effective obstacle.

(b) Flat trajectory fires can be placed on possible crossing sites.

(c) Observation is equal or superior to that of the enemy.

(d) The river runs generally parallel to the front of the defense position.

(e) Concealment and cover for the defender are excellent.

(2) The absence of one or more of the conditions listed above may require the defense to be conducted on the first suitable terrain away from the river.

c. In defending a riverline employing forces on the near bank, the defense is organized to prevent a crossing by the enemy or to destroy him by counterattack while he is astride the river. In applying this method one of two techniques may be used. The defense may be organized with either minimum or maximum forces in the forward area.

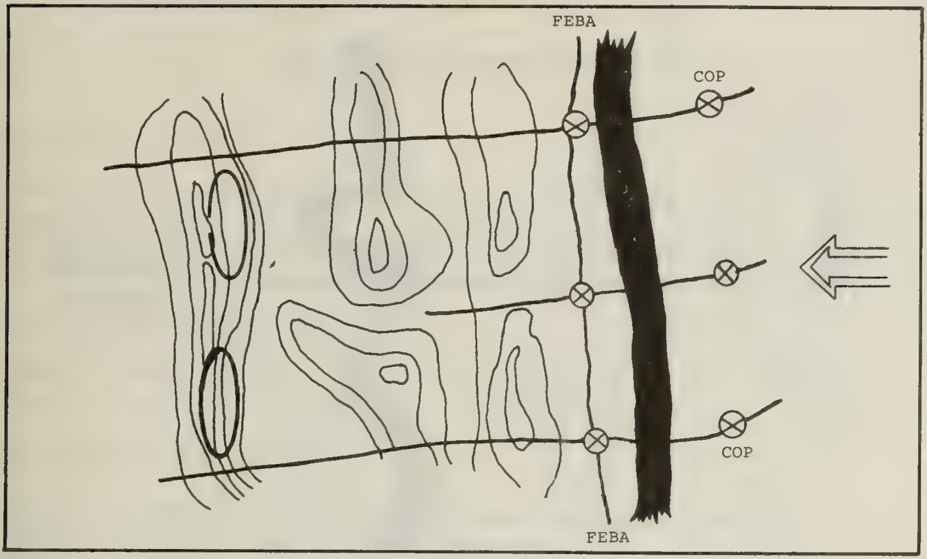


Figure 33.--Defense of a Riverline Near Bank, Minimum Forces Forward.

(1) When the defense is organized on the near bank with minimum forces forward, the commander employs the forward forces to control the crossing sites, facilitating the employment of the counterattack force to strike the enemy while he is astride the river. (See fig. 33.)

(2) When the defense is organized on the near bank with maximum forces forward, it is organized as an area defense. (See fig. 34.)

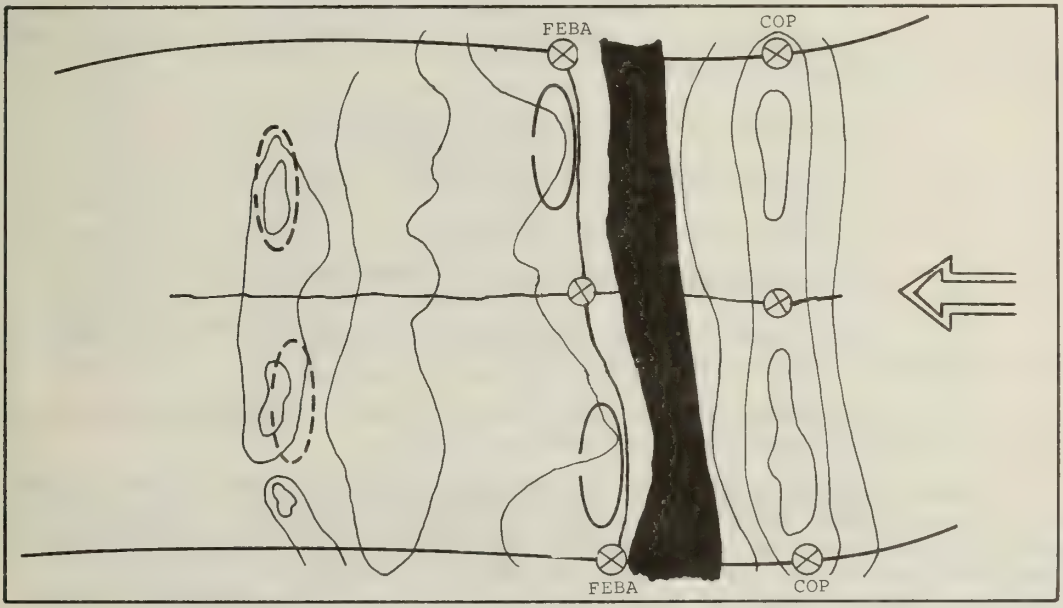


Figure 34.--Defense of a Riverline Near Bank, Maximum Forces Forward.

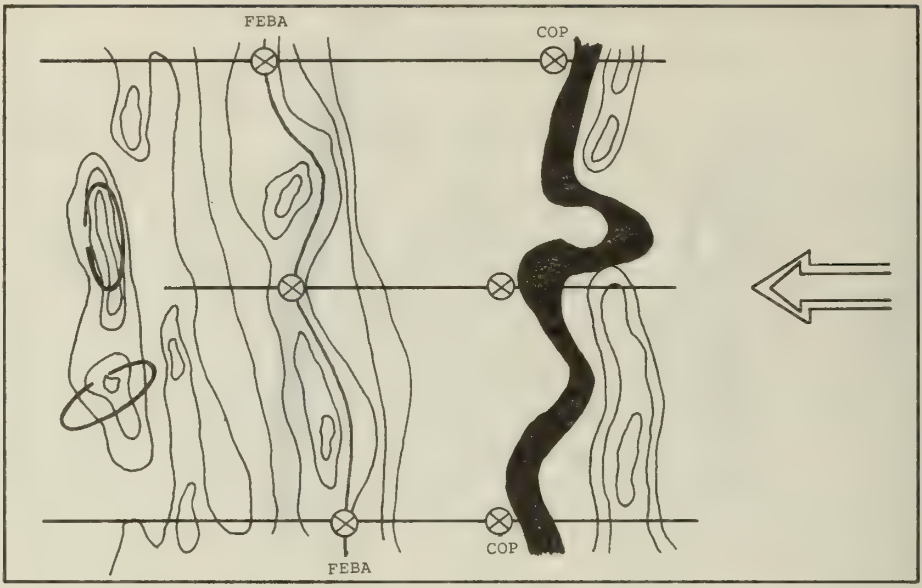


Figure 35.--Defense of a Riverline Away from Near Bank.

(3) The following factors should be considered by the commander in determining whether to defend on the near bank with minimum or maximum forces forward:

(a) Width of the defense sector.

(b) Crossing sites available to the enemy.

(c) Defensive characteristics of the near bank and trafficability within the battle area.

(d) Enemy air and nuclear capability.

(e) Enemy river-crossing capability.

(f) Mobility of the defender.

(g) Availability of tanks to the defender.

(h) Capability of the enemy to employ screening smoke to provide concealment during the crossing.

(4) The battalion is the lowest level of command at which the selection of one of these two techniques is made.

d. The other method is to organize an area defense on the first suitable terrain away from the river. The defender seeks to control the approaches from the river and canalize the enemy, stalling his attack when he is astride the river and destroying hostile elements on the near bank. This defense lends itself to the employment of spoiling attacks between the FEBA and the river. (See fig. 35.)

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